

BUILDING PERSONALITY

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BUILDING PERSONALITY

by

A. GORDON MELVIN

Author of

PROGRESSIVE TEACHING

THE TECHNIQUE OF PROGRESSIVE TEACHING

EDUCATION FOR A NEW ERA

THE JOHN DAY COMPANY

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TO MY WIFE



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PART I

THE NATURE OF PERSONALITY

CHAPTER I

CONFUSION IN CURRENT PSYCHOLOGY

WHAT MAN is there among us today who knows "psychology"? Who among our teachers of the subject can lay claim to catholicity? Have we not all been brought up with prejudices, and trained in this view or that? Today there are brands of psychology, much as there are brands of toilet soap, clothing or vacuum cleaners. Automobile salesmen are, perhaps, to be pardoned if their enthusiasms are reserved for their own particular make of automobile. Upon its sales depends their livelihood. But why advertise brands of psychology? Can we not be impartial when we seek not sales but truth?

Those of us who today have reached any degree of maturity were brought up in some particular psychological household. The writer remembers how, as a youth, he was introduced to the subject by the fundamental error that "psychology is the study of the mind." It has taken years to shake off the fallacies of that easy generalization. In those seemingly untroubled days of mind psychology, students were but dimly conscious of any serious differences of psychological opinion. The comparatively inert structuralism of those who leaned toward Titchener, and the more active functionalism of those influenced by James, presented a contrast which seemed merely academic. The beginner imagined a comparative harmony within the household of these various mind psychologists.¹ Differing points of view were obvious only to the expert.

"This schism among the earlier psychologists," writes

¹ To the professional psychologist, of course, differences seemed sharp enough. Titchener was on speaking terms only with Hall and Sanford among the psychologists of the time. It is said Cattell and Baldwin quarreled.

Adams,¹ "was not so obvious or so clear-cut as the contrasting views of its leaders might lead one to think. Compared to the clamor of the last two decades, since behaviorism and psychoanalysis have grown so articulate, the first years of American psychology seem almost idyllically peaceful. The functionalists and the structuralists could never agree as to the meaning of mind and consciousness, yet neither side doubted the existence or importance of them. Moreover, both groups had two heritages in common: a respect for experimental results and a passion for the terminology of empirical philosophy. In the early days, therefore, it was quite possible to read a score of treatises by as many different authorities without once doubting that they all expounded the same subject. The very words, which stood out in italics or great black letters throughout the text, were reassuring: association, will, habit, perception, attention, memory, emotion, thought, feeling, imagination, sensation, instinct. They were all familiar, comfortable words and had become eminently respectable through three centuries of intimate association with the best British metaphysics. Though the functionalists and the structuralists never agreed as to their exact meaning, all the bulky volumes which employed them looked just the same. They all contained the same trick pictures of optical illusions, the same fascinating analyses of complex thoughts, the same interminable lists of instincts. As textbook after textbook poured from the presses in the 90's, James began to wonder if there really was any greater difference among them than a 'fondness on the authors' part for certain phrases.' "

There was no hint in the classrooms of those days that there were other "psychologies" in the world. Nor did graduate study amount to anything further than a more

¹ The references are indicated by numbers which refer to the bibliography at the back of the book.

complete development of an already narrow point of view. Study of the typical current brand of psychology became so intensive that no time was left to realize that these were but the teachings of a group of men whose ideas were deeply colored by physiology, that this was but one of numerous back-door entrances to psychology.

Such a vitiated experience must be typical of the student of psychology during the first quarter of this twentieth century. Starting with some psychological theory we have pursued it to the end, very much to our profit from the point of view of psychology, but often to our confusion in the other realms of thought and life. Solving certain problems concerning the mind has nevertheless left us in certain great dilemmas concerning life. For psychology has lived a life apart. It has left us with all the problems involved in the inadequacy of its axioms. Psychology but feebly integrated within its own compartments has become isolated from life.

It is, perhaps, too much to hope that the general integration of psychology with other departments of thinking may be soon established. Yet it is time that thinkers set to work on this problem. If we are to begin to do so we must be courageous. We must be willing to shake away many more or less established forms and categories. We must rid ourselves of our penchant for this, that, or the other point of view. We must look for a new orientation. We must broaden our view to include the historic development of the subject as well as all its modern branches. We must seek new fundamentals. Then we must integrate the realms of modern psychology not merely to one another but to those fundamentals themselves and to the general problems of thinking and living. We must, in short, seek the front door to psychology. Such a difficult, perhaps impossible, search is the object of the present discussion.

CHAPTER II

CONFLICTS IN CURRENT PSYCHOLOGY

IF CONFUSION is abroad in the realm of psychology, what is the specific nature of this confusion? What are the problems which seem so difficult of solution? What are the conflicts which seem too difficult to resolve?

WHAT IS THE NATURE OF CONFUSION?

The most obvious evidence of the existing confusion in matters psychological is provided by the phenomenon of the various schools of psychology. In an attempt to bring some order out of the present chaos writers in the field have attempted to give some account of these differing schools. The provision of such an account is one of the advanced problems of the moment, and in recognition of that fact psychologists of standing have been attacking the problem of presenting, not a unified picture of psychology, but rather a diversified account of each point of view without any attempt at relating them. This is in tacit acknowledgment of the fact that in the present state of affairs the only unity in the field of psychology is to be found in diversity.

No full account of the differing systems expounded by adherents of the varying schools of psychology will be given in these pages. It may be pertinent, however, for the sake of clarity, to make some reference to the way in which recent writers have attempted to identify and catalog differing points of view. Finding his approach in the attitude taken by psychologists toward the relationships of what they refer to as mind and body, Ogden ⁷² has presented the following classification of points of view:

- (1) Materialism and Behaviorism
- (2) Animism and Interactionism
- (3) Psycho-neural Parallelism
- (4) Epiphenomenalism
- (5) The Double Aspect Hypothesis
- (6) Neutral Monism
- (7) The Double Language Hypothesis

These seven theories Ogden distinguishes as the most important to the psychologist. At the same time he points out that the number of theories "theoretically possible" as to the relations of mind and matter is seventeen!

Woodworth¹⁰² has contributed much to bring some order out of chaos by providing an account of contemporary schools of psychology with a presentation and explanation of the views and contrasting positions of each of them. He discusses these various schools under the following heads:

- (1) Introspective Psychology and the Existential School
- (2) Behaviorism
- (3) Gestalt Psychology or Configurationism
- (4) Psychoanalysis and Related Schools
- (5) Purposivism or Hormic Psychology

Each of these schools represents a struggle to escape from the miry clay of complex difficulties and problems which characterized psychology of the early century. Most of them arose in open, and sometimes over-self-conscious, revolt against the point of view in which their exponents were trained.

Since it is not the work of this book to give any extended account of the views of the various schools of psychology it may be advisable to quote what seems to be the best brief summary of these positions which has been published. The

following admirable analysis is given by Adams.¹ Although the present writer cannot agree with all its judgments, it is particularly useful because of its clearly established internal relationships.

"The whole field of modern psychology can be sharply divided into two great sections: experimental psychology and psychoanalysis. The EXPERIMENTAL PSYCHOLOGISTS—behaviorists, *Gestaltists*, functionalists, structuralists—all try, by adapting the observational methods of natural science to their own needs, to obtain facts about mind or personality. The PSYCHOANALYSTS, who are primarily mental physicians, seek an interpretation of human nature which will aid them in alleviating the psychic maladies of the race.

"The *Behaviorists*, Watson, Lashley, Hunter, etc., regard their fellow man as they do an animal. They investigate only those of his activities which can be observed by another person or detected by scientific instruments. Behavioristically conceived, human life is nothing more than a series of physiological reactions, every one set off by an accidental contact with a physical stimulus. A *reflex*, such as a twitch of a single muscle, is the simplest of these reactions, but Watson describes as a *response* any human activity that can be externally observed. The entire personality, with all its capabilities and deficiencies, its faults and virtues, is the result of *conditioning*—that is, of certain responses becoming intimately connected with certain sets of stimuli.

The *Functionalists*, James, Dewey, Ladd, Angell, etc., regard man as a biological organism, a product both of environment and inheritance. They also study behavior, inherited instincts and acquired habits, but they are especially curious about mental activities such as sensations, feelings and thoughts, which for them constitute *conscious-*

ness. *Introspection* or self-observation is the method by which they investigate these conscious activities.

"*Structuralism*, as expounded by Wundt, Titchener, Münsterberg, etc., is the fundamental introspective system. The structuralists identify mind with consciousness, but they consider it not the biological function of the brain as the functionalists do, but a complex formation of psychic elements. As a chemist tries to reduce all matter to its physical elements, so a structural psychologist seeks, by means of introspection and impersonal attitude, to analyze the human mind into its simplest processes. *Sensation*, the experience resulting from the direct stimulation of a single sense-organ, is the most important of these mental elements and the only one about whose ultimate simplicity all structuralists agree.

"*Gestalt psychology* still shows traces of its recent connection with structuralism, but the *Gestaltists* vigorously deny mental elements. *Gestalt* or form is for them the fundamental attribute of mind. All our experiences, mental and physical, have, they believe, a definite and inherent pattern or *configuration*.

"The *Psychoanalysts*, Freud, Jung, Adler, etc., believe that the key to all the puzzles of human nature is to be found in unconscious motivation. But their various descriptions of this hidden power vary.

"The human psyche, according to Freud, is divided into three departments: the *Id* is unconscious and instinctive, the *Ego* is rational and in large part conscious, the *Super-Ego* is moral and corresponds to the ethical conscience. The *unconscious* contains not only the primal motives of the human race but also all the 'evil' desires and ideas which have been *repressed*, that is, disowned by consciousness. *Libido*, the force of the erotic instinct, is active even in early infancy when it is directed toward the mother, whom

Freud describes as the first object of love. Those incestuous wishes which refuse to relinquish this object for another are described as *fixated*. Their integration forms the Oedipus complex. A strong Oedipus complex becomes the ruling force of the personality. It is especially apparent in *dreams* which, Freudianly interpreted, are always manifestations of repressed desires. Erotic impulses which turn toward non-sexual objects are said to be *sublimated*.

"The *inferiority complex*, in Adler's concept of the psyche, is the one compelling motive of human nature. The inferiority complex is acquired in early infancy when a baby feels itself weaker than all other persons and inadequate to cope with the world. It is enhanced by any physical or mental, real or imaginary deficiency. Because of it, Adler believes, every person wants to dominate his environment, so that a striving toward power becomes the ruling force of psychic life.

"The interpretation of the inner life of man is further complicated by Jung's insistence that beyond the Freudian personal unconscious there lies a collective *super-personal unconscious* composed of *arche-types of mind*—that is, of racial images—and by his belief that every man possesses an unconscious feminine nature, called the *anima*, and every woman a corresponding *animus*. Jung, however, treats sex more lightly than Freud and uses his theory of psychological types to explain personality. According to this hypothesis everyone is either introverted or extraverted. In an *introvert* the whole force of the psyche is driven inward upon himself; in an *extravert* it is directed outward to other persons and objects. An introvert is therefore shy and retiring, while an extravert is bold and gregarious. Jung attempts to relate his theory of types to experimental psychology by declaring that there are four kinds each of

extraverts and introverts: the *thinking, feeling, sensation* and *intuitive*."

We are today inclined to wonder if the total result of these efforts to clarify psychology by giving a separate account of each school is not confusion worse confounded. After his most thorough and clear examination of these opposing schools, Woodworth¹⁰² goes on to make the following statement:

"Suppose we should organize a world's tournament or Olympic contest of psychologists, and should assemble the two or three thousand of them in some large field, with banners raised here and there as rallying points for the adherents of the several schools—a banner here for Freud, a banner there for Adler, one for Jung, one for McDougall, one for Gestalt school, one for the behaviorists, and one for the existentialists, with perhaps two or three other banners waving for schools which I have not mentioned. After all the loyal adherents of each school had flocked to their respective banners, there would remain a large body in the middle of the field, or on the grand stand ready to watch the jousting. How many would thus remain unattached? A majority? I am convinced it would be a large majority."

This is indeed the case. Hesitating to subscribe to one school with its obvious weaknesses and insufficiencies, and at the same time recognizing a certain value in each, the average psychologist has attempted to become an eclectic. But eclecticism under such conditions is fraught with great difficulty. Without any fundamentals and without any guiding posts how shall we choose? Nor can the matter be so simple as to dip into each of the schools and take what seems sensible. For although one may adopt the classification of schools or brands of psychology which has been presented above there are yet many other particular forms of psychology clamoring for attention. The terms used by

different writers are legion. There is overlapping of types, and there is cutting across of classifications. Who shall distinguish between behaviorism, physiological psychology and the psychology of the conditioned reflex? There are some who would find them closely allied, while yet others are strangely vehement in their desire to distinguish the one from the other. May I, as a student of physiological psychology, incorporate and harmonize with my general system the contributions of the Gestalt school, or must I oppose them as interlopers who are not to be allowed within the fold? Or must I, leaning strongly toward the Freudian point of view, which has been of great assistance to me in practical dealing with individuals, yet accept the Freudian interpretation of dreams? If Freud can teach me much, yet are there not close alliances between his doctrines and many of the conclusions of the physiological psychologists?

As if this were not enough I struggle against "genetic psychology," "structural psychology," "social psychology," "the psychology of childhood," "the psychology of adolescence." In addition there are the numerous realms of "applied psychology," such as "educational psychology," "medical psychology," and "the psychology of advertising"! Such a pass has now been reached that the department of psychology in a large college recently made application for permission to offer fifteen different (?) courses in psychology. What must be the dismay of undergraduates regarding such an offering? So scattered has the study of psychology become that we are studying the leaves and the margins of the leaves with infinite and infinitesimal pains, but we have forgotten the trunk and the roots.

The general confusion in theory is reflected, furthermore, in the practice of psychology. In the vast realm of "mental hygiene" there are conflicting theories and

methods. When the feet of the practitioner stand on such shifting sands there must be the greatest uncertainty as to treatment. The best the psychologist can do for his patient is to choose pragmatically what seems to work. Furthermore, the confusion in psychology is also present in our conceptions of the nature of the learning process. General school practice throughout the United States, especially in high school and college, seems still to be based very largely upon the ancient and discredited faculty psychology. Physiological psychology is largely affecting the newer school practice, and yet were we to follow it to the limit much that is done today in our schools to develop certain less tangible aspects of the personality would be left stranded without any definite guidance. There is no clear development of psychology which can be safely relied upon as a thoroughly sound basis for educational theory. Yet we flounder on, blindly applying this bit of psychology and that, choosing patches of curriculum and patches of school practice much as a grandmother chooses the squares which please her for her crazy quilt.

CAUSES OF THE PRESENT CONFUSION IN HISTORIC DEVELOPMENT OF PSYCHOLOGY

Such is the nature of the confusion in the realms of psychological theory and practice. Let us consider some of its causes. In this case, as in most others, the causes lie revealed in history.

It has been said that psychology has had a long past but a brief history. Thus it is intended to indicate that although the roots and beginnings of psychology extend into the distant past, yet its fuller development in modern form has been a matter of comparatively few years. If we were to represent the history of psychology on a diagram we might indicate a period of serious and important thinking largely

colored by a psychological point of view in the time of the Greeks; then stretching forward through the centuries a very long and somewhat tenuous period in which thinking was usually somewhat lamely psychological. Finally in modern times the last century would indicate a development more definitely and clearly psychological, culminating in a veritable efflorescence of psychological theories and investigations.

Anywhere in the course of this long stretch of years may be found a beginning point for the history of psychology. According to the point of view of the chooser the beginnings of psychology may be found in one place or another. If we wish to look backward to the earliest significant foundations of which we have good records we must go back to the Greeks and discover the sources of later thought. Historically speaking, psychological thinking is firmly rooted in Plato and Aristotle. The *De Anima* of Aristotle which has been called a history of psychology contains psychological implications and anticipations which extend up to the present. Traversing history forward in broad stages we might examine the period from the time of the Greeks until the end of the fifteenth century, including the rise of Christianity and the development of scholasticism. Here we would be unlikely to find beginnings distinctly psychological. True it is that Pauline theology with its emphasis on the individual might be regarded as the beginning of new psychological attitudes. The medical interest of Galen, which classified human temperaments as ardent, irascible, dejected or apathetic, might be considered a beginning of more definite objectivity. On the whole, however, this period contributed comparatively little which can be regarded as distinctly psychological. The next stage, the sixteenth century, is notable for certain psychological discoveries and attitudes

which indicate some advance. In the work of Juan Luis Vives, sometimes called the father of modern psychology, are flashes of insight. Mariotte detected the "blind spot" in the retina. Willis wrote on the localization of functions in the brain. Passing the seventeenth century the work of Descartes, with its definition of consciousness and its theories concerning the relation of body and mind, may be regarded by some as the dividing line between traditional and modern psychology. Others find in John Locke, who introduced the term "association of ideas," the founder of modern empirical psychology. Locke developed his "white paper" theory of the mind, and so believed that all experience came through sensation and reflection upon it. Still others who are education-minded lay stress on the elaborate *post facto* constructions of Herbart. In the most restricted sense, however, the psychology which we know today has developed in this the most recent stage of history. Modern psychology may perhaps most properly be said to date from the work of Weber, Fechner and Wundt in the middle of the last century. It is therefore a most modern thing and may quite rightly be called "new" and "young." The very complexity of the processes of personality tend to make them difficult to understand. This complexity has been increased many times by the long period of speculation from the time of the Greeks to the last century, and many times more by the unsettled turmoil of the present time. Modern psychology is a young subject, and it is full of the unsettled and transitory characteristics of youth itself. Current confusion in psychology is due both to its age and its youth.

In our present examination of the history of psychology, however, we are not concerned with dates except inasmuch as they bear on the matter of the age of psychology. Our search is not for dates or periods but rather for an historic stem. This stem, it must be quite obvious, extends far back

to Plato and Aristotle. This is on every hand an acknowledged fact. It is most important to note that the origins of psychology were first of all *practical* and in the second place *philosophical*.

The dilemmas of life as they presented themselves to simple earlier peoples demanded some practical explanation. The phenomenon of death and what must be done with the dead body demanded some theory of what had happened. Natural phenomena—the wind, the lightning, animals and plants—all had to be interpreted in their relation to human personality if the practical problems of life were to be dealt with. Thus certain theories of mind or of spirit arose to assist men in solving their *practical* problems.

The trend of such solutions is philosophical. Naïve philosophies are, nevertheless, philosophies. Furthermore, as time progresses, naïve philosophies develop into sophisticated ones. In course of time philosophy emerges upon the heights of Greek thinking. But philosophy no longer exists merely for the sake of the light it throws upon practical problems, although it still retains its original values in that direction. Now philosophy can claim an independent existence. Philosophy has become “philosophy.” And so historically it has remained. Philosophy is a distinct branch of learning, with bearings which are distinctly psychological. So we come to the conclusion that psychology was first implicit in practical situations and then involved in philosophical ones.

Such was the rise of psychology. Such has been its history until the middle of the nineteenth century. Such is the stem for which we have been looking, the stem from which has arisen what we call modern psychology.

We must now examine the way in which the concept of pure psychology has emerged from this essentially practical and developmentally philosophical root or stem. This

emergence or independence of psychology is closely connected with the development of science. The stimulus to its special growth and rapid development was coincident with and actually dependent upon the development of the scientific spirit. It is important to realize this if we are to get a clear notion of psychology which is essentially practical, necessarily philosophical and recently scientific. Only by regarding it genetically will it be possible to keep quite clear upon its real nature and understand its true function and relationships. Only thus may we avoid one of the most fundamental fallacies of modern psychologists, the fallacy of regarding psychology as a pure science.

At this point it will be useful to proceed with some consideration of the way in which the scientific bent of modern thinking has influenced psychology in its process of branching off from its parent stem of philosophy. Science, as we know it today, is a modern conception. Traversing the paths of history we continually refer to the deficiencies of Aristotle's work from a scientific point of view, of the unscientific outlook of scholasticism, which had lost the inductive part of Aristotle, of the awakening of a new naturalism in the Renaissance, its development by the Sense Realists. After traveling so far, we at last discuss Bacon's recovery of the inductive method. Finally we note the growth in the last four hundred years, and the especially rich development in the last one hundred years of what we know as pure science. A brief consideration of the following data will indicate this rapid growth.

Previous to the sixteenth century the tools of science were largely missing. In 1530 Copernicus completed his theory of the solar system, and in 1590 Galileo discovered the law of falling bodies. The seventeenth and eighteenth centuries saw a fuller development of scientific work. Boyle

defined element, compound and mixture about 1662, Newton discovered the laws of motion and inertia in 1686. In 1774 Pasteur discovered oxygen, while Halley discovered the motion of the stars in 1718.

Scientific development in the nineteenth century was fuller than that of any previous century. The progress of chemistry was marked. The discovery of Avogadro's Law in 1811 made it possible to determine atomic or molecular weights. In 1852 Frankland founded the doctrine of valency. In 1868 Lockyer discovered helium in the spectrum of the sun. Crookes discovered radiant matter in 1876. Monsieur and Madame Curie discovered radium in 1898. The same century was also a signal one in physics and invention. In 1831 Faraday discovered electromagnetic induction, while Maxwell propounded the electromagnetic theory of light in 1864. Röntgen discovered X-rays in 1895, while Marconi invented wireless communication in 1896. Medicine and biology moved rapidly forward. In 1880 Pasteur isolated streptococcus and staphylococcus and Behring discovered antitoxins in 1889. In 1839 Schwan founded the cell theory of biology, in 1883 Beneden and others discovered chromosomes, and in 1892 Weismann published his theory of the germ plasm.

The scientific work of the first quarter of the present century has already equalled that of the previous hundred years. There has been a veritable deluge of magnificent scientific accomplishments. A few notable accomplishments are here listed.

- 1901 Takamine isolated adrenalin.
- 1901 Planck developed the quantum theory of energy.
- 1903 Orville Wright flew the first heavier than air machine for the first time.
- 1903 Fixation of nitrogen by the electric arc and cyanimide process.

- 1903 Ramsay and Soddy discovered that the element helium is produced by spontaneous atomic disintegration from the element radium.
- 1903 De Vries published the theory of mutation.
- 1905 Einstein announced the special theory of relativity.
- 1906 Willstatter worked out the composition of chlorophyll.
- 1907 Lee de Forest added grid to electron tube forming modern radio triode.
- 1909 Shackleton located the South magnetic pole.
- 1909 Wilson associated sex determinant with special chromosomes.
- 1910 Harries synthesized rubber from isoprene.
- 1912 Growth of living tissues of warm-blooded animals *in vitro*.
- 1913 Mount Wilson observatory discovered shifts in the solar spectrum indicating that the sun is a magnetized sphere.
- 1914 Determination of atomic numbers by means of X-ray spectra, made by Moseley.
- 1918 Map-making from airplanes was inaugurated during the World War.
- 1919 Noguchi isolated organism that causes yellow fever.
- 1919 Millikan measured the charge of an electron.
- 1921 Soddy showed atoms of elements are multiples of reduced hydrogen atom.
- 1922 Confirmation of Einstein's predictions that the rays of light from a star would be bent 1.75 seconds of arc on passing the sun.
- 1922 Banting and Best found that internal secretion from the pancreas (insulin) regulates sugar metabolism and is specific for diabetes.
- 1934 Lawrence and Livingston develop the neutron ray.

This array of data is given merely because it is symbolic of the way in which the current of thinking was turned in the nineteenth century toward science. There followed, in every branch of thought, a feverish attempt to bring its concepts in line with scientific thinking. Thinking in the realms of chemistry and physics, and the other so-called exact sciences, began to color every branch of learning. Each strove to be what was regarded as scientific. Education, sociology, and even history and literature were imbued with a philosophy false to their nature by their ludicrous attempts to become exact sciences. Students suffered under bone-dry teachers of history who sought facts with a dreary attempt to evaluate and weigh them. Students of literature were distressed by a tiresome reiteration of the facts about Shakespeare. There came a turning away from everything which pertained to earnestness, interest, enthusiasm or interpretation. The green pastures of learning became the parched and desert sands of a scholarship that objectively counted the dust. It was perhaps inevitable that psychology should be influenced by this same blighting attitude. The attempt to squeeze psychology into the category of a pure science was but an outcome of the times.

In 1786 Kant had prophesied that psychology could never become a science. He argued that this was so because it could not be, as any science must be, numerically treated. In 1834, however, Weber, granting that higher mental processes could not be measured, nevertheless offered proof that sensation could be measured indirectly. Thus he expressed the relation between stimulus and perception in arithmetical and geometrical progressions. So the curse of measurement fell upon psychology, and that unfortunate eagerness to reduce psychology to a science was handed on to America by Münsterberg, Titchener and even by James

and Hall. Today the notion of psychology as a science has become almost a fetish with our modern sophist, the average college professor.

Yet to regard psychology as nothing more than a pure science is to cut off the branch from the stem and the roots. Fundamentally psychology was originally practical and philosophical. To be complete and oriented it must continue to be so. If, while thus related, psychology develops firmly and soundly in the scientific direction all is to the good. If, on the other hand, so-called psychologists, in an excess of narrow-minded and ignorant fervor, attempt to divorce it from its alliances with the practical and philosophical only confusion and incompleteness can result. Unfortunately these have already resulted. The development of psychology is today seriously hampered by psychologists whose view only stretches to an horizon bounded by the concept of pure science. Beyond is the great orb of a world neglected and unexplored.

PROBLEMS AND CONFLICTS OF CURRENT PSYCHOLOGY

The delineation of the nature of the confusion in current psychology and of some of the causes of the confusion may profitably be followed by a consideration of certain other allied problems. What are some of the problems with which psychology is torn today? The following paragraphs will consider them in part. It should be kept in mind, however, that this discussion must be somewhat limited. In the first place it would be undesirable to discuss at this time all such problems and conflicts. Neither is it to the present purpose to classify them or to analyze particularly the causes which are at the root of the divergences involved. The purpose of this discussion is to indicate some of the more important problems and conflicts, to emphasize their complexity, to reveal how acute the dilemmas and

how wide the breaches. They are set forth here not for solution but as concrete illustration of the confusion already mentioned. It is hoped, however, that before the reading of this volume is concluded criteria will have been set forth which will assist in resolving certain of these current difficulties.

1. *Subjective Experience or Objective Behavior*

The widest cleavage exists between proponents of differing points of view with reference to the field of psychological investigation. Should this be the field of consciousness or the field of concretely observable behavior? Should psychology concern itself with those things which we experience, our seeing, our hearing, our believing, our thinking? Should it be concerned with the elusive and the non-substantial, with those abstract and more or less vague phenomena which we all recognize as part of our essential selves? Or should the psychologist look toward "the other one" rather than toward himself? Should he exclude from his realm of investigation those subjective matters of his own consciousness and experience and regard only the behavior of other human beings, the specimens in his laboratory, naïvely forgetting that his interpretations must be made subjectively by his own illicit personality?

The exponents of the first of these two points of view, who inherit from Wundt through Titchener, are variously called structuralists, experiential psychologists, those of the Existential school, or sometimes just psychologists. They tend not to be hostile toward the second group, who inherit from Wundt and James but have pursued methods which are traditional rather than radical. The second group, known according to various minor characteristics as the behaviorists or sometimes as functionalists, tend to be intolerant and bumptious, waving the red flag with the ardor of

the adolescent. They will have none of the subjective states of consciousness, but are more interested in the arms and legs of their fellow men. It is obvious that, while the first group might widen its limits to include the second, the second can have none of the first.

2. *The Problem of Method*

Closely allied to this question of the correct field for the labors of the psychologist is the matter of the method which he may soundly pursue in carrying on his work. The method of introspection is frequently allowed by the existentialists, while the behaviorists will have none of it. They pretend to limit their methods to those objective ones used by the natural sciences. This, again, represents a wide difference of opinion between different psychologists. The method of introspection is one of the ancient standbys of philosophers from time immemorial. The ordinary man uses it whenever he says "I think," "I feel," or "I wish," in fact whenever he looks within himself. Taking over this self-regarding process as a means to an end, psychologists have deliberately used it as a method of investigation. It has been called the method of introspection. But there is another method which is considerably different. Disregarding all those subjective avenues of approach, the investigator may examine the world of people about him and record, list, classify, and count whatever there is about human beings which may be so treated. This is called the method of the natural sciences, a method which is distinctly "from Missouri," and believes only what it thinks it sees. While both the method of introspection and the method of the natural sciences are widely used today, some psychologists will not use one, others refuse to use the other. The problem remains: which of these methods is sound, if either?

3. *Is There a Mind-Substance?*

Still another problem about which psychologists have speculated is the existence of mind as an object, material or substance. Münsterberg wrote that the limits of psychology are easily understood, that psychology considers the mental life as an object, an object which must be analyzed and explained. We have physical bodies composed of a substance called flesh. Can it be that we have minds composed of another substance analogous to flesh, of mind-stuff? While in such blatant form we hear little of such a doctrine today, yet many of the positions advanced by psychologists would lead one to believe that their reasoning was based on some such conception. Might there not be something in the nature of a mental flesh, or mind-substance?

On the other hand, such a conception is alien to present ways of thinking. It seems to the modern student gross and unnatural. Yet we may be inclined to regard such a view as a sound analogy. If there be no real mind substance, yet may we not progress by thinking in such terms for the sake of analogy? We might thus make progress in our psychological thinking, which would otherwise not be made. But whether mind-substance is regarded as a reality or as an analogy the result is practically the same. It produces an attitude toward psychology which is difficult to reconcile with that of others who have no such preconception. This attitude is very closely associated with the teaching that psychology is the study of the mind. The individual who has this notion of psychology must suspect that somewhere in the remote processes of his assumed premises is lurking the visage of a substance-mind. To the discussion of this problem these pages will return. The psychologist who is willing to discard mind psychology will find that the substance-mind disappears along with it.

4. *Fundamental Dualism*

The attitude taken toward the problem of the substance-mind just discussed is related to another problem which is causing much confusion in psychological thinking. From ancient times there has been assumed in practically all our thinking a fundamental dualism between mind and body. Its bearings upon the question of the substance-mind have just been referred to. Its bearings in other directions are wide and most influential in almost every field of thought. The conception itself assumes that personality is a duality composed of mind and body. The problems which have arisen out of the discussion of the relationships of these dualities are endless. The tendency to regard the mind and the body as separate entities has posed a thousand problems. In fact the confusions and contradictions and dilemmas of philosophy and psychology throughout the ages are due more to this one fundamental concept of a duality of mind and body than to any other single concept. It has proved for a time a most convenient notion. Each one of us uses it in his daily thinking. When we are thinking we ask not to be interrupted because *mind* is occupied, we say that manual labor tires the *body* but not the *mind*. Psychologists use the dualism as a convenient basis for defining the limits of the subject when they say it is the study of the mind. (Supposed to relegate the study of the body to physiology.) And yet when all is said and done, what basis have we in fact for our cherished dualism? Aristotle has been an authority for many a day, and in this matter of psycho-physical dualism he may be appealed to. Yet is the concept valid?

It does not seem too much to say that until psychology is able to rid itself of this ancient dualism it can never stand solidly upon its feet in the modern world. But the difficulty

is here. To abandon our adherence to dualistic notions is to propound more questions than we solve. We may avoid the difficulties of dualism, but will we not precipitate a thousand new difficulties? Is it not better to accept the difficulties which we have rather than to fly to others which we know not of? Such is the dilemma which psychology faces today. Whatever conclusion is reached it can scarcely be expected to cast oil upon troubled waters.

CHAPTER III

THE NEED FOR AN INTEGRATED PSYCHOLOGY

INTEGRATION NEEDED IN THE REALM OF PSYCHOLOGY

AMID such complex problems psychology is in need of integration. We look for something which will draw its diverse parts together, synthesize and simplify its dualisms. Nor is psychology, in this respect, different from the other concerns of our everyday life. Our world today is essentially one in which what has been far away is being drawn together. What has been separated is being made one. As air transportation and radio communication are effective integrating factors in the physical world, the world seems to shrink into a unity. We are becoming world-minded. We think in terms of the "Great Society." So it is in the realm of thought. No longer are we seeking to split things into their parts, to differentiate, to divide, to analyze. In every branch of learning the process of division has been pursued to the limit. The result is a vast mass of unintegrated and sometimes unrelated details. What we seek for in every realm of life today is not further division but integration. We look not for diversity but for unity.

In these days the thought of the world is entering a new era. Only a careful student of the slow-moving centuries can clearly realize how slowly human thinking develops. The labors of the centuries have brought us only this far. Human beings waited for the Greeks before they realized themselves and their problems. Rome made their institutions. Christianity and scholasticism reinterpreted life in terms of faith. Modern times have attempted to

interpret it in terms of reason. Hence our nineteenth century scramble for analysis. The thoughts and facts of the world were placed in columns and categories. Blandly each one was pigeonholed and cataloged and those discretely organized data represent the stage which we as a race have reached. Before us lies the day of relationships. How may these isolated strands, these segments, these particles be related? What is their bearing upon one another? What are the patterns which they reveal of life, of time and eternity? To answer these questions is the work of our new century. In its labors we look for new revelation and new vision.

It is hoped that the point of view to be set forth here will accomplish something in this direction. That it should entirely succeed would be too much to expect. If it is possible to make some contribution toward integration in the realm of psychology it cannot fail to be worth while. An attempt will therefore be made in the pages which follow to present first a fundamental point of view, and then to establish its relationships in many directions. So we cannot fail to move in the direction of greater simplicity and wholeness. From now on we may expect of any new point of view that it be no new school but a system relating all schools.

THE QUEST OF FUNDAMENTALS

In the search for an integrated and fundamental point of view in psychology certain criteria are essential. In the first place, it is desirable that the point of view adopted shall be in accord with the age-old purpose and function of psychology. It should further be a point of view which will be of definite assistance in the understanding of human behavior. In addition it should deal with practical rather than with artificially defined entities.

1. *A Point of View in Harmony with the Function and Purpose of Psychology*

It has already been pointed out that psychological thinking is very ancient indeed. Its very anciency indicates the fact that it has been called into being by humanity to meet some fundamental human need. Any point of view in psychology which is obviously cut off from the root and stem of this historic functional purpose would obviously distort the practical and real value of psychology to the human race. A brief consideration of the historic origins of psychology may assist in reminding us of its fundamental human purpose. It is said that the word "psychology" itself does not occur before the sixteenth century. Melancthon used it as a title for academic lectures, but it was not widely used until the time of Christian von Wolff in the eighteenth century, through whom it became generally known. The use of the word, however, was merely by way of naming a type of thinking which had much earlier origin and purpose. In the sixteenth century there had not yet developed any sharp or radical change in psychological thought. Psychological theory has, until most recent times, been very much of a piece and very single in its purposes. It arose with the distinct purpose of enabling men to understand and control human conduct. It was no academic or professional science, it was a purposeful and deliberate effort of human beings to understand themselves and their fellow men for definite and practical purposes. In other words, psychology is not a mental luxury for isolated thinkers, but a functional form of thinking which is called into being by human need. Even present day psychology preserves in its materials distinct evidence of this functional purpose. Those who would make of psychology a pure science have been farthest from this basic continuity. Those who have

less violated it have today maintained the practical and philosophical nature of psychology which is in harmony with its continuous historic development.

Psychology must continue in its basic and original function of throwing the maximum of useful light upon human life and human problems. The quibble as to whether the approach to these problems is to be scientific or philosophical is beside the point. We must be philosophical when it will be helpful to be so. We must be scientific when it will be helpful to be so. We must be neither to the exclusion of the other. The criterion of what is psychologically sound must be that of the real historic structure and function of psychology to improve human control of human life. Any fundamental point of view which could satisfactorily contribute toward an integrated form of psychology must necessarily fulfill this criterion of basic continuity of purpose and structure.

2. A Point of View Which Will Assist in Understanding Human Behavior

Very closely related to this first criterion is the second, that a desirable point of view in psychology must be such as will assist in the understanding of human behavior. The complex world in which we live today demands from every form of thought the utmost in serviceableness to man. So stringent are the passes in which we find ourselves, so basic are the problems, that the times demand the most practical and useful outcomes of every branch of life if we are to preserve and maintain human civilization. It is a time in which psychology must be practical. Psychology has too often been cluttered up with much that is academic and self-concerned. It has used such remotely valuable categories as the influence of heredity and environment, neither of which appears outside of books or in human conduct

unmingled with the other. It has studied such impractical and isolated topics as rate of tapping and speed of reaction. It has sought problems capable of being studied rather than human difficulties which need to be solved. Its criteria of objectivity have served as a basis of determining what shall be investigated. Only what can be objectively studied has seemed to merit the attention of many research scholars. Thus psychology has too often existed for the sake of its theory of method rather than to fulfill its purpose of helping to understand human behavior as it occurs in life.

Knowledge for its own sake is good; knowledge which has practical bearings in the improvement of human life is better. Today we ask of such a branch of study as psychology not merely that it shall be an accretion of facts, knowledges and processes like the medieval numerology of Rabanus Maurus, but that it shall in addition be of some use in the world. We need a psychology which will face human problems as they are, not in some abstract and removed fashion; one which will study real problems of human life, which are pressing for solution; and one which will study all the problems of human behavior, not merely those which seem to harmonize with a fancied theory or method of procedure. In brief, psychology should deal with human conduct and real human problems. Thus psychology may be of maximum value in the world. Surely it is not too much to ask of any fundamental approach in psychology that it shall obviously lead to a fuller and more complete understanding of human behavior.

3. *A Point of View Which Deals With Entities*

For a fundamental point of view we need one which deals with entities. An entity is a structural whole. In order to be a valid or useful entity for any given purpose the entity must have established relationships and be deter-

mined by suitable principles. We have failed to deal with such entities in our psychological thinking. Without some definite practical intention psychology is left without any guiding principle in selecting and ordering its fundamental and subsidiary entities. We have floundered on without any fundamental notion of psychology. We have been unable to define it. We have developed no basic conceptions of its nature. We have no clear understanding of its function; we have no evident conception of its structure. We have failed to conceive of psychology as a basic entity practically developed and related to the other great entities of thought and life. Without any such basic entity how much less have we been able to distinguish subsidiary entities. Thus we lack not only a fundamental and basic concept but we lack any notion of its functional parts. We have no organic structure. Psychology has not been a living reality but an artificial institution. We have rejected life and its realities as a basis. We have substituted artificial and logical categories.

The cold impersonality of logic can reduce learning to categories which are dead as dust because they are not related to organized structures or wholes. We have been too much under the domination of logic in all our thinking.

As a process logic must be ever useful. As a means or method of thinking it is deadening. Logical determination of basic categories is a most disastrous process if there is any intention on the part of the thinker to make a practical use and application of his deductions.

Thoughtful that our processes should be logical we have often forgotten to see that our premises should be natural, practical and whole. We have not insisted that our conclusions shall be molded in the form of life, that they shall be related to life's problems and adaptable to human

uses. So we have proceeded diligently to analyze, not heeding whether our categories were whole ones, but glorying in the meticulous character of our divisions. Such procedure does not meet human needs. In the realm of psychology occur such subsidiary concepts as those of reason, memory, body, mind and spirit, or of the substance-mind. Such categories are artificial rather than real. They are logical rather than functional, although our whole thought system is so imbued with these ideas that it is difficult even to recognize their non-functional nature. We should substitute for such logical and artificial categories others which are functional and real. If in the light of real principles we may develop a fundamental basis of psychological thought we may within and related to that fundamental basis develop subsidiary categories which are structural entities rather than logical categories. Thus may arise an organic whole branching into its structural parts. Such should be our ideal in the development of psychology. Difficult as it may be, yet it is essential to seek such a state of affairs. As a third criterion of a valid psychology it is suggested that it should be concerned with life entities in order that its conclusions may be whole and in terms of human life.

CHAPTER IV

PSYCHOLOGY AS THE STUDY OF PERSONALITY

RECENT YEARS have revealed an increasing but largely unrecognized tendency toward widening the study of psychology to include all the reaches and ranges of the personality. Studies of personality have been varied and numerous. Some of these have been a mere mechanical analysis of discrete traits, which have been set forth, discussed and evaluated. Others have marshaled current psychological knowledge in familiar categories in the analysis and description of the individual. The appearance of these studies does not, however, seem to indicate a deliberate and sophisticated attempt to realign psychology fundamentally in terms of the study of personality. They seem to have appeared as the inevitable result of pressures developing from the matrix of current psychological thinking. They seem to be something in the nature of an unconscious exploring of the way, a path discovered somewhat accidentally and in stumbling fashion. There has been no clear and widespread recognition of the fact that psychology is basically and fundamentally a study of human personality.

This idea is here set forth as a fundamental. It may be stated more clearly before consideration is given to the way in which it fulfills the three criteria set forth in the previous chapter. Psychology is the study of personality. The search for a fuller understanding of human personality should be the basic approach to psychology. This is a comparatively innocent statement, so simple that it may appear a truism. If its simplicity be that of an axiom so much the better. As a premise it is not imposing, yet its implications

are wide and far-reaching. All conclusions are packed away somewhere in our premises, as game is hidden in a forest. Thus the work of the scholar becomes something of a pursuit. Yet the success of his hunting depends very much upon his initial choice of a hunting ground. So it is in our thinking. If the field of personality becomes the hunting ground of the psychologist he must be prepared to deal with *all* that he finds there. He may not pick and choose here and there what happens to suit his limited mode of approach. He may not have eyes that see not and ears that hear not. He must frankly and squarely concern himself with each and every phenomenon which human personality presents. Though he may not study each with equal thoroughness, yet he is bound to study none without establishing its relationships to the others.

One who is not prepared to accept this responsibility had better reject the fundamental premise here set forth. He had better drop this discussion at this point, and turn away to other discussions and other points of view. Yet where will he turn as a psychologist who is not interested in personality? Let him turn to his statistics and become as inept as he may. Let him juggle with his reflexes until his subjects are sufficiently tortured for the sake of "science." Let him wallow in the prurience he sees in dreams. If he turns away from personality he turns from that which is fundamental to the work he should be engaged upon.)

By personality is meant that unified phenomenon which we attribute to the human being in virtue of his existence. It includes all that we mean when we call ourselves or another a person. Unfortunately the word personality, used in its basic and true etymological meaning, has many other uses which have been more or less distorted. Personality has been taken to mean a special something which enables

certain people to impress themselves with unusual power upon others. Using the word in this sense we sometimes say that a certain speaker, or a certain actress has a "strong personality." Again, it is sometimes remarked that some leading figure in world events, such as Mussolini, is a real "personality," an individual whose influence makes its impress upon the world. A third use, which is rather poor from a literary point of view, is evident in statements which substitute the word "personality" where the word "person" would be more dignified: for example, "seven personalities were present." It is none of these more or less irregular uses of the word that is here intended. It refers rather to what the word itself would seem to indicate: the fullness and complex richness of characteristics and realities which make up that totality which we call a human being.)

How does this basic notion of psychology as the study of personality fulfill the three criteria which have been noted as essential to any such basic notion? In the first place, it is obvious that a psychology which is the appreciation and investigation of personality is entirely in accord with the historic structure and purpose of psychology both ancient and modern. This is what the Greeks were concerned with. They sought to discover how man could get along in a hostile world. They treated man as a phenomenon to be understood and reckoned with, although they were, like most later thinkers, so concerned with his parts and divisions, with their analyses and interpretations, that they too often forgot his fundamental personableness. From that time on we hear endless tales of soul, and mind, and reason, and *pneuma*, and *anima* and of the hundred and one ways in which personality may be partially conceived. More recently it has been consciousness, states of mind, or neural connections. The most modern of us have hung babies from sticks to see how strong is their grasp, blindly

responding to the ancient urge to discover all that is to be known of human personality.

It is the search for a better understanding of ourselves and others which has pushed on the psychologist to his work. Sometimes he has been lost in this, that, or the other bypath, or caught in this, that, or the other eddy. He has sometimes forgotten that his task was fundamentally practical and secondarily philosophical. But underneath it all has run this strong urge to discover and to know the phenomenon of human personality. This has been the age-long task of the psychologist, and this is his task today.

Psychology which deals with personality will most obviously fulfill the second criterion, that its findings should throw light on human behavior. To say that we should be concerned with human personality is but another way of saying that we should be concerned with human behavior. We are looking at the same problem from a different angle, the latter slightly the more objective and more practical. It is obvious, especially after the previous discussion, that psychology should be practical in its bearings. Not always directly practical, because the larger realm of learning is sometimes philosophical rather than directly and obviously practical. Yet the implications of psychology should be intensely pragmatic. We are concerned with real behavior every day in all our dealings with ourselves and others, and psychology must meet these needs. It must not give us statistics when we ask for bread. Thus psychology should plot the structure of personality and throw light on behavior, first basically and then in every direction; but since in all things personality is the be-er and the doer and the behavior, all must be in terms of personality.

Passing further we come to the requirement which demands that the thinking involved shall be in terms of entities. When we consider personality we consider a funda-

mental entity. Personality is the unit with which psychology must concern itself. It is the whole in terms of which everything else in the field of psychology must be interpreted and to which everything else must be related. Furthermore it is a structural, not an arbitrary whole. It is most unfortunate for our thinking when it becomes necessary for us to deal in wholes which are arbitrary and categorical rather than structural. This is most obvious in the realm of genetics which may serve as an example. Genetics is today compelled to use the classifications of biology which are not, in the genetic sense of the word, biological. Animals and plants have been placed in classes upon the basis of observed external structure. Because these specimens of plants and animals are not fully known, biologists have placed them in classes upon an almost accidental basis, that of their appearance and gross structure. This poses a problem for the geneticist. In dealing with the phenomena of inheritance he should deal with genera and species which have been classified upon a genetic basis, upon the basis of inheritance. His science should proceed upon the basis of its own structural entities. Lacking these he has attempted to proceed without them on the basis of arbitrary classifications based on external structure to the infinite confusion of the science of genetics.

Psychology has too often erred in this direction. Its entities have too often been non-structural. It has dealt with statistics instead of with aspects of the personality to be measured. It has treated of the conditioned reflex, without considering the conditioned reflex of what. Wholes within any branch of study should be structurally composed in homogeneous terms. The structure of the parts should be in the same basic terms as the structure of the whole. This may obviously be so if the basic entity of psychology is personality. With such a practical, observable, concrete and

well-defined basic entity it will be possible that the sub-phenomena of psychology may still be stated in homogeneous terms, in terms of personality.

THE PSYCHOLOGY OF PERSONALITY

It is hoped that this foundation will avoid much of the confusion which now reigns supreme in this department of human thought. By pursuing this theme we may hope to rid psychology of many of its conflicts, and to avoid certain of its dualisms. On the other hand, it should not be expected that it will avoid a multiplicity of problems. Yet we do not seek to flee problems. We only desire to escape error and intolerance. We should welcome anything which gives us coherence and order even if it brings endless new problems.

Let us be quite clear upon the nature of our premise. Why is it that personality is eminently the basic realm of psychology? After all, is it not persons in which we are interested? Why do we study psychology? Is it because we have an academic interest in mind? Or perhaps a theological interest in soul? Or an atheistic antagonism to certain viewpoints? Or a prudish interest in the abstruse and the esoteric? Are we genuinely in search of what will assist us in our living in this new world of ours, which has changed in this third of a century as at the waving of a fairy wand? If we are so interested it is to psychology that we will look to tell us the tale of personality.

Yet there will be a protest against any who choose this way. The priests of psychology today, who are already within the veil, will find the inner temple very differently furnished. Looking outward the initiate in the "science of psychology" will not favor so "unpsychological a psychology." Flatly he will say, "This is not psychology." Let him, then, rename it to suit himself. If psychology in-

sists on keeping itself boxed in a category of the established type it is entitled to do so. If categories are to be maintained for the sake of categories then we have no advance, or value from them except those of classification. The tendency to cut off parts such as psychology from wholes such as philosophy or life may be scientific in the commonly accepted use of the word, but it is not useful or valuable. It is not analysis which is needed today but integration. Our psychology must be part of the greater wholes of philosophy and life. If the word psychology has not become too settled in its form, too formalized, and too dead, it may stretch its meaning and clothe the study of personality with its name. If not then it is a matter of no consequence. Old categories must go, if they will not conform themselves to present needs.

Today we are seriously in need of a branch of study which is frankly a study and interpretation of personality. In the first place parents need it. Faced with the endless and intricate problems of their families, they need definite light thrown upon them. Teachers are desperately in need of the fullest and most complete light that psychology can focus upon the boys and girls in their care. Teachers are engaged upon the task of making personality, and whatever can contribute to the more successful accomplishment of this task contributes to education in its highest and most real sense. (Every man in his everyday relationships needs knowledge of personality. Only with such a knowledge can he understand individuals in their relationships to one another and order his own relations toward them. We need a great deal of thinking in terms of personality. We parents, teachers, and mere men in a complex world are all vitally in need of what assistance it can give us in our living. We need the psychology of personality.

CHAPTER V

PERSONALITY RELATED TO THE LIFE STREAM

WE MUST approach the study of personality by establishing its relationships to other entities. For individual personality does not stand alone without origin. In considering any entity we must not remove it from its setting. To do so is to do it violence. For in the world of nature nothing exists apart. There are no categories in nature. The categories we call natural are imposed by our own thinking. They are the modes which personality uses in perceiving its environment. Thus we must particularly beware of the isolation of basic entities from the matrix in which they are found. Such isolation can do great damage to our conclusions.

Personality is definitely a branching off from a larger entity. This larger entity may be called the *life stream*. The actual existence of such a life stream is as undeniable as the basic facts of biology. We see before us a generation of men rising from a previous generation and passing on life to another rising generation. In the ancient days of the Hyksos kings the story was an old one. Man after man linked in a never-ending chain from the first that is called human to the myriads yet unborn. And each man has arisen by the virtue of the man who went before. The presence of the child postulates the parents and so on backward into earliest time. Without the parent the child could not exist. The child branches off from the same life stream that posited his mother and his father.

We are not dealing here with the philosophic or the abstruse. We are dealing with facts as scientifically objec-

tive as any which are observed in the laboratory. Our observations are, if anything, more objective, more scientific in the best sense of the word, than any which are carried on by the chemist or the physicist. For the conditions which we observe and from which we derive our conclusions are not artificial. They are not arranged and staged. They are natural. The panorama of history, the realities of birth and death, the hurrying procession of living beings about us. What is more real than these? What is more tangible?

THE SOURCE OF THE LIFE STREAM

It is equally undeniable, for those of us who believe in a relationship between what is called cause and what is called effect, that the life stream itself must be related to a larger entity. Pursuing back the train of relationships so far it would be ridiculous to abandon our method when it reaches beyond psychological locality. We must acknowledge that there is a larger entity than the life stream which is the source of personality. By recognizing such a source we are not setting forth categories or divisions, but are rather indicating relationships. A stream is a stream. It is a whole in which we may recognize various related parts such as the branch stream, the main stream, and the source. Thus personality, being related to the life stream, is related to the source. We have a continuous train of relationships, free from the charge of separatism.

Reaching back this far in its establishment of relationships, psychology has reached its limits. Psychology need not name or identify this source of life. It is for psychology to recognize what is obvious. Further discussion of the nature of the life source is then properly relegated to other fields of thought. Thus, psychology establishes its relationships with other departments of learning. It has not

entirely cut itself off, but it has indicated its boundaries and has validated its existence as a separate department of learning. It is as though a departing voyager should stand at the rail of the ship and wave a last acknowledgment of his membership in the family on the pier. Psychology, while its wanderings lie apart, is thus not forgetful of its alliances.

PERSONALITY BRANCHING OFF FROM THE LIFE STREAM

We return to psychology and the stream of life. Without this stream of life there could be no humanity. Without it there could be no personality. For personality is a branching off from the life stream. When we say that a child "was born" we acknowledge a double phenomenon. We recognize the indubitable reality of the life stream and also the definite temporary severance of the individual from it.

The severance of the personality from the life stream is a most extraordinary phenomenon, one of the most extraordinary phenomena of all experience. It is so commonplace that it is almost forgotten. "Innumerable," Carlyle reminds us, "are the illusions and legerdemain tricks of Custom; but of all these perhaps the cleverest is her knack of persuading us that the Miraculous, by simple repetition, ceases to be Miraculous." "Am I to view the Stupendous with stupid indifference, because I have seen it twice, or two hundred, or two million times?" The frequency and commonplaceness of the phenomenon of separate personality should not blind us to its importance.

The separation of the personality from the life stream is just as objective as birth itself. It is as definite as the severing of the umbilical cord. We are not discussing the abstract or the abstruse, but nothing less objective than the world of humans in which we live.

The remarkable nature of this phenomenon of birth

lies in the fact that at some moment a fundamental cell became independently vital. Finding its origin in the parent stem which carries the continuing potency of the life stream this cell branches off from this stem. The process of branching is culminated at birth when the personality becomes a separate entity.

Herein may we find the key to the fundamentals of personality. A person is an individual with an independent vitality. Hence he must be an individual with an independent center of action. Personality is the sum total of the qualities and characteristics of such a person. Such a definition establishes the obvious separateness of personality, at the same time acknowledging its extra-personal relationships.

This provides a conception of personality which is fundamental yet nevertheless complex. From this complexity it is unwise and even undesirable to attempt to escape. The search for simplicity is as fallacious as it is appealing. We must not be guilty of it. It is obvious, however, that the complexity here involved is in the structure and relationships of the entity personality, not in the entity itself, which is a simple and obvious one.

This complexity of relationships should be clear. The recognition of an independent center of action as the basis of individuality accounts for the living and dynamic quality of personality. This life force resident in the individual indicates the relationships of personality to the life stream. Definite separateness is indicated by the use of the term individual. The fundamental entity termed personality has within itself the two conflicting properties of dependence and independence. A person is at once related to and separate from the stream of life of which he is a part.

THE STRUCTURE OF PERSONALITY

Consider personality so defined with reference to its dependence and its independence. There is obviously a dynamic driving force. In virtue of the independence of this driving force personality must, by its very nature, be self-determining. Yet personality cannot be said to be independent of outside circumstances such as its need for nourishment. Consequently its directional powers are determined in relationship to its environment. Finally personality manifests itself via a mechanism commonly called the body. We will consider these matters in further detail.

1. *The Life Force*

A correct notion of personality must include a recognition of what may be called the life force. Such a recognition of the dynamic nature of personality is not common. Psychology as a whole, and physiological psychology in particular, has almost entirely lacked or has certainly understressed the dynamic quality of the individual. Recent psychology has been the psychology of the cadaver. Such is the inevitable result of a study which limits itself to the mechanism. It is the natural outcome of the analytic and non-relational approach of recent thinking. We tend to falsely localize sight or hearing in the organ of the eye or ear. Forgetting the larger living entity we fall into the error of regarding sight as the function of the eye. We thus commit the error common in current psychology of regarding function as a phenomenon of structure. Even so-called Dynamic Psychology has struggled with this matter in hesitating and grudging fashion. Postulating a drive within personality certain psychologists have yet seen this drive as a mere phenomenon of structure. They have considered it structurally self-generating. They have regarded it as a

co-phenomenon of a certain structural relationship of atoms, denying even causal relationships. In other words, they have admitted the phenomenon and have been willing to regard it objectively. They have, however, refused to consider its source, its cause, its vital relationships. Thus personality is left a floating phenomenon without extra-personal relationships. Psychology becomes an isolated and unrelated realm of thought. But such a mode of thought is shallow and evasive. Such procedure can only be based on a premise which would be "scientific" rather than sensible.

Thus has been ruled out from our thinking the dynamic and vital background of function. We have neglected the most significant and important aspect of personality, its life. The psychologist has even been tempted to diagram activity as if it were generated not in the person but in the environment, in terms of environment, bond and response. (S—R). (Situation-bond-response.) In this formula is crystallized the non-dynamic psychological thinking common today. So completely has the vital aspect of personality been forgotten that the formula itself indicates that action proceeds out of the environment (S), that environment is the source of energy of the act. A simple inversion of the formula would have avoided the encouragement of this error (R—S). At the same time it might still leave one to assume that function is a phenomenon of structure. Nor is this mode of presentation an accident. Physiological psychologists may even contend for such an interpretation of action. This is rational suicide. One may deny reality by beating one's head against one's cell. But any man is blind indeed who denies life itself. This is basic denial.

If we acknowledge life, however, we must look for it in our discussions of personality. It must be analogous to other forces recognized by science, such as gravity and elec-

tricity. It has received no thoroughgoing recognition in recent psychology. It is implied in education in the concept of growth and in deference paid to the creative approaches of the learner. But it must have more than implication.

THE SELF-DETERMINING CHARACTER OF PERSONALITY

Granted this propulsive and independent quality of personality it is obvious that personality is fundamentally self-determining. Independence is first signified when the initial cell becomes independently vital. There occurs a schism in the life stream. There is a relinquishing of vital control by the life stream, and a corresponding assumption of control by the seceding personality. At birth biological severance is complete. This separateness of the personality entity forces us to the conclusion that personality is independently self-determining. There is no gain-saying this fact unless one denies the propulsive and vital quality of personality. If any degree of positive vitality be allowed, the individual must be, to a certain extent, self-determining. Only by a deliberate and determined negativism, which ascribes all vitality as finding its direction in the environment, or by the denial of life itself can this position be countered. If we are willing to make divisions within the personality we might be left the alternative of choosing between the theory that the life force controls the center of action or that the center of action controls the life force. But such a splitting up of personality is not sound or sensible. Since all the powers of the individual lie resident in his separate personality, it is inevitable that the personality should be self-determining.

PERSONALITY DEPENDENT UPON OUTSIDE CIRCUMSTANCES

Independent and separate as personality may be, yet it is not complete unless the life force is resident and func-

tioning in the total personality. This resident functioning is dependent upon relationships which exist between the personality and its environment. An infant dies unless another person mediates between it and its environment. A grown man must deal with his environment in such a way as to make it yield food, clothing and shelter. Otherwise he would die, which means that psychologically speaking his personality would cease to function. Thus personality is not to be considered without an extended consideration of its relationships to environment. Personality reacts and interacts with environment. Personality makes environment and environment, to a certain extent, makes personality. It is this dual reaction of making and responding to the environment which finally fixes the self-determining character of personality. Personality controls the environment to which it reacts.

This is of the utmost significance in all our dealings with personality. What is given to personality by the life stream remains constant. The life force is not to be supplied by the environment but maintained and guided. On the contrary, if any part of the environment is selected by the self-determining powers of the personality it becomes by extension a part of that personality. In our dealings with men, what we do, say, reveal or give is our offering to other personalities. Whatever they partake of becomes part of them. So personality grows poorly in a barren environment but finds its fullest and richest flowering in a world of many good things.

PERSONALITY IS MANIFESTED VIA A MECHANISM

The qualities and attributes of personality are manifested by means of a mechanism. This mechanism, which personality uses in making itself apparent, is the material aspect of personality. It is composed of interdependent

cells, structurally differentiated and grouped according to the special uses of the personality. The bones, for instance, are used by the personality to support its structure erect and to hold other tissues in place. The veins serve as conduits for the blood, and the heart is used to pump blood through the veins. Grouped in their totality these compose the mechanism which presents to the eye of an observer the outward form which we call a person.

All the being and the doing of personality is a result of the life force suffusing and animating the mechanism. It is only by means of this mechanism that personality can make itself known, can manifest itself. If personality is to function in this material world in terms of our present experience, its separation from this mechanism is inconceivable. For it is only by means of this mechanism that it can exhibit itself. Furthermore, it is only by means of this mechanism that we are capable of perceiving the personality of others.

On the other hand, it would be most inaccurate to suppose that the mechanism which limits and circumscribes personality is all of personality. Personality includes much more. It includes the dynamic reality of the life force. It includes all that personality has become by interaction with the environment. It includes attributes and qualities literally without measure or without limit. Yet it is not intended to stress these here. The point of this discussion is that the qualities and characteristics of personality clothe themselves and appear only by a mechanism which is sensibly and objectively present.

In addition to their tendency to regard the mechanism as separate from the total personality, psychologists are prone to another error. This is to regard the nervous tissue of the total organism as separate from the total mechanism. Because the nerves are tissues specially associated with the

functioning of the total organism, and the direction of the life force within the mechanism, they are generally accepted as the mechanism. Because the mechanism makes special use of them in its essential functioning the function is attributed to the special tissues themselves. In reality, however, no cell or tissue of the total mechanism is in any functioning of the personality dissociated from any other cell or tissue. It is the total mechanism which functions in every manifestation of personality.

CHAPTER VI

PERSONALITY A UNIFIED PHENOMENON

PSYCHOLOGICAL THINKING, from the time of the Greeks continually down to the present, bears so definitely the mark of Aristotelian categories that it is almost impossible to escape them in our thinking. Yet the categories of Aristotle were made for a world yet young in philosophy, a world hardly conscious of itself, in which thinking and philosophic investigation were in a state of comparative chaos. The problem of philosophy in those days long ago was to analyze the heterogeneous mass of human experience. For the human being first sees wholes, then analyzes the wholes into parts. To the early philosophers the world seemed one vast clutter. Experience was total. Knowledge was accidental and unorganized. The physical world was an uncharted whole. The land itself was unmapped and the ocean unexplored. How much less realized were the things of the non-material world. Strange to us seem the categories under which men have at various times attempted to classify and organize what they encountered in the world about them. The curious divisions which the Chinese made imagined a shadow world, a replica of their own Flowery Empire of the Middle Kingdom. While the real world was governed by the Chinese Emperor, the Son of Heaven, the shadow world, which corresponded province for province and town for town, was governed by the Shadowy Emperor. The shadow world was peopled with the ghosts of the real who lived by means of shadow money in the shadowy houses and markets of a non-material world. Anaximenes maintained that the fundamental flux of the universe was

air which, since it seems capable of pervading every part and inserting itself among the grosser materials, manages to hold together the various elements of matter. Speculation in the centuries preceding the Christian era supposed that the fundamental requirements of life were spirits and humors. The world, including human beings, was constructed of elements: air, fire, water and earth. The human structure was characterized by four humors with corresponding qualities, blood (warm), phlegm (cold), yellow bile (dry), and black bile (moist). Compounded in certain ratios these brought health or disease. Such primitive ideas continued for centuries and influenced the thought of the Middle Ages, especially in the realms of alchemy and necromancy.

Greek thinking rose far above these lower levels. Aristotle inherited much from the advanced thinking of his predecessors, especially Socrates and Plato. But to Aristotle more than to any other single individual must be given the credit of wrestling almost single-handed with the protean complex of primitive data and confused speculation which composed the learning of his day. With the penetration of a master mind he set about the classification of this vast and intricate mass of details. In the process of classification he discovered the great trunk lines or stems of human thought. He set learning into the basic categories which, with some modification and addition, remain today as the fundamental departments of our culture. This is obvious in the remaining titles of the hundreds of volumes attributed to him. They have been classified into the logical, the scientific, the esthetic and the philosophical books as follows:

Logical

The group collected and edited under the title of the *Organon* includes Categories, Topics, Prior

Analytics, Posterior Analytics, Propositions, Sophistical Refutation.

Scientific

Physics, On the Heavens, Growth and Decay, Meteorology, Natural History, On the Soul, The Parts of Animals, The Generation of Animals, The Movements of Animals.

Esthetic

Rhetoric, Poetics.

Philosophical

Ethics, Politics, Metaphysics.

Aristotle has been credited with the foundation of many of the sciences not listed above, such as biology. One writer points out that we can hardly speak of any science today without employing terms which he invented. Some of these are *mean*, *faculty*, *category*, *actuality*, *energy*, *end*, *motive*, *form* and *principle*. Most certainly Aristotle, more than any other man, is responsible for the categories which Western men since his time have used in their thinking.

But the world has changed mightily since the days of Aristotle. It is no longer a primitive world, grasping for its first principles of comprehension. It is rather an ultra-sophisticated world. For centuries it has mulled over and interpreted its experiences in the terms of its original analyses. Almost every nook and cranny of the various fields of knowledge outlined in the times of the Greeks has been explored and re-explored until we have reached the limits of discussion in each direction. Furthermore, the development of modern science has made the whole world over in modern patterns. Our entities are today new entities, and our experiences appear in terms which are new to mankind. Today we hear and see what is not present to our organism: our submarines penetrate the deeps, our tall

buildings pierce the sky, and flying we usurp Puck's ancient privilege and girdle the earth. It is a new world in which we live, and in it old categories are proving inadequate.

The complexity which surrounds us today is a newer and a different complexity from that of ancient days. It demands not so much that we analyze its parts, for its very being is the result of incessant and untiring analysis, but that we comprehend its wholes and view it in related fashion. For the days of analysis are over and the need for synthesis is upon us. We are urgently in need of comprehending the world in entities which are related in an organized system. But in the meanwhile we attempt to maintain our out-worn categories and our customary ways of apprehending experiences. We are thus infinitely hindered in our problems of interpreting what goes on about us. In our adherence to the form of historic classifications and categories lie the seeds of much of our present disordered thinking.

ARISTOTELIAN DIVISIONS OF PERSONALITY

If we cannot definitely attribute the division of personality into its commonly accepted parts to Aristotle himself, yet we may clearly attribute it to his influence. The rough and ready division of personality into the three parts, body, mind and spirit, is so common and so generally accepted by the man in the street that it may be regarded as part of the daily stock in trade of our thinking. The day hardly passes in which we do not either read or hear such expressions as "His *body* is old, but he is very young in *spirit*." "If you put your *mind* to it you will do it easily enough." "The *spirit* is willing but the *flesh* is weak."

Such a thoughtless division of the personality into three parts is making mischief in the realm of psychology. We must give up this habit of dissecting personality into un-

related parts and learn always to regard personality as an entity. We must substitute for this series of partial conceptions a series of unified and related ones. Only so may we hope to free ourselves from some of the problems which are so extremely perplexing.

PERSONALITY A UNIT

In order to avoid this unfortunate breaking up of personality into separate parts we must develop a conception of personality as a living unit. We thus deny the separateness implied by the division of personality into such categories as mind and body. These categories do not actually exist; they are merely academic devices invented by ourselves to facilitate logical thinking. Since they violate reality, error is reflected in the deductions made from them, which cannot be in terms of reality. The conception of unity enables us to transcend the limitations placed upon thinking by common categories and permits us to conceive of personality in fresh modes. We need not confine ourselves to materialistic approaches which persuade us to conceive of personality only in terms of the mechanism by which it is manifested. Such an approach is influenced by the fallacious idea of separateness within the personality. Again the concept of entity enables us to rise above mere notions of space, time or substance. We are thus freed from several fallacies. One of these is to regard personality merely in terms of physical extensity. Personality is usually regarded as a phenomenon bounded by the physical limits of the body. Such a limitation on the interpretation of the personality in terms of spatial extensity of the physical mechanism can entirely falsify our notions of life. If personality were limited in extensity to its physical manifestation human activities would demand some such physical contact as that required for the forwarding of an electric

current. The work of the world would have to be done in some vast game of ring-a-rosy. As it is the whole world is one huge complex of mingling, acting and interacting personalities. This psychological complex is an almost totally unknown and unexplored phenomenon. It is worthy of decades of study and volumes of interpretation. We need to know much of this series of local, distant and world-wide relationships which are concerned not merely with our family lives but with our national and international living. What are the bonds and barriers which lie within this complex? Hundreds of world languages, for instance, form a barrier between men which is far more real and significant than the fortified physical boundaries of nations. Today we do not know how to map or plot the relationships between even two individuals. How much less can we know of the mapping and plotting of the psychological relationships of group with group, those relationships on which our whole social, governmental, national and international life depends? The plotting of these personal relationships is a far more vast and complex task than that of plotting and discovering the physical features of our earth's continents and islands.

A second fallacy which we may avoid by regarding personality as a unit is that of regarding it in terms of its temporary manifestations. We have been too much tied down to a point of view which looks at personality laterally rather than longitudinally. Personality is a continuing phenomenon. It is not to be thought of in terms of a rat's reaction to an electric shock. We have been wrapped up in the moment. We have failed to recognize the continuing quality of an act. We have considered human reactions as if they resembled the splash of the stone in the water but did not include the ripples which continue in never-ending line. Thus we have sometimes failed to realize the

cumulative quality of personality. We have failed to realize it as a never-ending phenomenon. We have harbored the idea of its eradicableness. Jealous of our theories of conservation of matter, we have guarded and accounted for every atom, but have allowed personality itself to be blown out like a wisp of steam in the summer air. These fallacies we have allowed to develop through our failure to realize the non-temporary character of personality. We need to reread history in terms of the continuing phenomenon of human personality.

Closely allied to this is one further fallacy, that of regarding personality in terms of substance. Just as the body is limited by its physical nature so we have often thought that the individual was limited from passing through doors and traveling to the ends of the earth. Yet daily we live in foreign lands, and in reading are carried far beyond physical experience. We are much more prone to interpret such experiences in terms of the non-moving substance of our bodily mechanism than in the terms of the vital center of our total experience. This is due to our continuing and ingrained habit of endowing the total personality with the qualities of substance. These substantial qualities, while they do apply to the physical mechanism, cannot be soundly applied to the total personality.

The concept of the unified personality thus frees us from such gross fallacies as that of the substance-mind already referred to. The belief in the substance-mind is a result of an attempt to conceive of all the aspects of personality in terms of space and substance. Such error is the result of approaching psychology through the study of the mechanism, falsely ascribing to it material limitation by analogy with the mechanism. This enslaving of the non-material to the material aspects of personality is the grossest error which develops from separateness in basic categories.

Freed from the necessity of using the concepts of time, space and substance in regarding the total phenomenon of the individual, we have no further necessity for regarding the personality in terms of any mind-substance.

Still more fortunate is avoidance of psychological dualism. This avoidance results from a unified concept of the individual. If personality be regarded as a unified phenomenon it is no longer necessary to maintain the dualism which results from the notion of a substance-mind. The dualism between mind and body as regarded in Aristotelian categories disappears. In fact all the dualisms which have burdened psychology disappear in the light of a unifying theory. There is no psychological dualism which is not man-made. In the functioning phenomenon of normal personality there are no dualisms. The personality as a vital entity is capable of no complete separately functioning divisions. Thus the concept of unified entity at one stroke does away with the old bogey of the substance-mind and the dogged perplexities of psychological dualism.

CHAPTER VII

RELATIONSHIPS WITHIN THE TOTAL PERSONALITY

IN ORDER to secure both analysis and integration we must carefully take count of relationships. Without the clear establishment of relationships within any entity analysis cannot be valid. We are therefore faced with the problem of considering the nature of relationships within the total personality.

To describe the nature of the unified personality is a particularly difficult task, since personality is a unique phenomenon. There is no other phenomenon of nature or life to which it can be compared. It is therefore impossible to place it in any group, category or class, or to discover any figure which adequately represents it. To conceive of it we must think of a living entity, or matrix, or plasm, a vital something with an internal structure of the most complex interrelationships. To consider any part of this whole without considering its relation to the rest is to commit a fallacy. We may never speak of the body without saying or at least implying that it is a related phenomenon. We might say the man's body, or the body of the personality, or if thoroughly sound in our background of thought, just the body, implying the relationship to the total personality. This cumbrous process of maintaining relationships, while it may seem to be tiresome or difficult, is nevertheless essential if we are to maintain notions which are whole and complete. The relationships which exist between the living phenomenon of personality and the world in which it lives, and the relationships which exist within itself are infinitely numer-

ous. The study of these numerous and complex relationships is the true task of psychology.

PSYCHOLOGY A STUDY OF RELATIONSHIPS

Stress must be laid upon the fact that psychology is a study not merely of entities but of relationships. The study of relationships is most elusive, and is frequently but poorly realized and understood. The average man seldom rises above his custom of thinking in terms of entities. He tends to think of himself, or his watch, or his wife, or his son not in terms of their relationships to himself and others but objectively as entities with which he is familiar. He thinks of his money, not of the relationships which exist between himself and the world in virtue of his money. When he votes he thinks of his political party, not of the functioning of society in terms of the relationships between his political party and the government by which he is ruled. Yet in each of these cases it is not the entities which count the most but the relationships which exist between them.

In the philosophical and scientific world thinking in terms of relationships is of particular importance. It is only by the discovery of hidden relationships that thinking makes much of its progress. For instance, although chips floated on the sea, and people swam in the pools of the world for generations, the principle of specific gravity remained unknown until the relationship which it represents was discovered by Archimedes. Why did it wait so long? Was it not that specific gravity is a ratio, not an entity? Men knew the ocean and the wood that floated upon it, but the relationship between the weight of a body and the weight of an equal amount of water, with all its valuable implications, remained long undiscovered by man.

The era of the study of relationships is still before the human race. Historically speaking we have but reached a

state in the cultural development of the race which is based on the thorough study of entities. Such a study was furthered by the scientific work of the nineteenth century. Natural science supported by mathematics was primarily a study of the natural entities of the world. Today the newer mathematics, dealing more and more with relationships and interrelationships, is a tool for the study and discovery of the relations which exist about us on every hand. As a race we have not yet studied relationships. Consider, for example, the way in which we have approached the study of the arts. Music, art, poetry, each has existed by and for itself. There has been little consideration of the complex series of relationships which exists between them. Such a study is full of possibilities, and may reveal much concerning the arts and life which has been hitherto but slightly understood. In every branch of human thought and work there lies hidden from us a series of relationships and interrelationships unknown and undiscovered. The fuller development of human affairs is dependent upon the discovery and use of these vast hidden resources. So it is in psychology. Until we learn in that field to think not merely of entities but of relationships we are vastly limited in our progress.

RELATIONSHIPS WITHIN THE PERSONALITY

In considering the relationships which exist within personality itself, we must enter the realm of theory, for we lack, and perhaps always must lack, certain objective phenomena which would enable us to avoid the theoretical. We may concern ourselves with the nature of the relationships which exist between the various points or aspects of the unified personality, irrespective of what those points or aspects may be, or in what terms they are conceived. This unified conception of personality with which we are

dealing makes it necessary to discard all notions of separated divisions or parts of the personality for the present. It is necessary to remain definitely in the realm of theory and to consider the points within the personality theoretically. For no matter in what terms aspects of the personality are conceived, or what two points within the personality be chosen, the theory of complete interdependence must be maintained.

THEORY OF COMPLETE INTERRELATIONSHIPS WITHIN THE PERSONALITY

The theory which is here advanced concerning the internal structure of personality is that it is related in all its points in terms of a series of complete mutual relationships and interdependences. This theory needs to be considered very carefully. Whether we regard personality as being divided in terms of old categories or of new, this state of complete mutual interdependence exists. It must pervade the whole discussion of psychology as set forth in succeeding pages. It is a state of affairs which runs along as a continual accompaniment of every separate discussion of psychology. No consideration of any aspect of the personality is complete without a consideration of a complete series of alliances of that aspect with every other aspect of personality. It binds the phenomena of psychology into one intermingling and interlocking phenomenon of vital function.

In order to illustrate the nature of this state of complete interrelationships let us use the entities of familiar concrete categories as a series of examples. If we think in terms of arms and legs, the arm is related to and dependent upon the leg. If we talk in terms of cells, then each cell is related to each other cell, and each other cell is in turn directly related to every other. If, to change the type of

category, we consider thought as a manifestation of personality, then any thought is related to all other thought within the total personality. But this is only part of the story. In order that our recognition of the relationships within personality may be complete we must further say that each thought is related to each other, each arm to each cell, and each cell again related to each thought. This is a gross way of illustrating the point, yet it must be regarded as a sound illustration of the terms of the theory which states that each aspect or point of the personality, however conceived, is related to each other aspect or point throughout the total personality.

ILLUSTRATIONS OF THE THEORY OF COMPLETE INTERRELATIONSHIPS

So-called physiological psychology has thrown much light upon the interrelationships which exist between the parts of the human mechanism. The "nervous system" is described as a system of nerves reaching to every surface and organ of the total mechanism and leading in to the spinal cord, the lower brain and the cerebrum. The gray outside surface called the cortex has been described as a switchboard for the countless impulses which pass hither and thither throughout the mechanism. It is described as a base which connects directly and indirectly with every other point in the nervous system. It has been called a projection surface upon which every muscle and sensitive point in the whole mechanism is represented.

It is obvious that in any mechanism so constructed it is not only the "switchboard" or cortex which is connected with every other point in the mechanism, but that every point in the mechanism is connected with every other point in the mechanism. This state of interrelationship which has been established with respect to certain aspects of the per-

sonality, the only one subject to objective scientific study, would lead us to believe that such relationships exist between all parts of the personality, since personality seems always to act as a unified whole and never in jerky or unrelated fashion. "Where the head goes," says the swimming instructor, "the body follows." So we might say in psychological parlance, where one part of the personality leads the others follow.

The phenomenon of death may help to clarify the theory of interrelationship. Psychology can only be concerned with personality up to the time of death. For with death personality ceases to manifest itself via the mechanism. Now this failure to manifest itself, which we call death, comes about in several ways. Death may come as the result of violent fright or some other powerful emotion. In such a case the part of the personality most concerned with fright dominates the situation. In other cases death ensues as the result of injury to certain vital organs. The injury seems to extend itself in its effect over the whole personality, resulting in the phenomenon of death. Again, the simple failure of the life force, one of the fundamental aspects of personality, is followed by death, especially in old age. The non-manifestation of the personality in one direction seems to be associated with its non-manifestation in all others. This tends to point in the direction of the complex interrelationships supposed.

Furthermore, injury to or strain upon one part of the personality often very obviously affects the others. A man runs his automobile into a post and escapes injury. He is weak from the shock although his mechanism has not been touched. Worry notoriously affects the mechanism unfavorably. After physical labor we are tired. Loss of blood lowers the general vitality. A toothache or a cold seems to devitalize the total mechanism. By a hundred occurrences of

everyday life we are reminded of the fact that what affects one part of the personality affects in some degree all others.

To this theory of complete mutual interrelationship and interdependence these pages will return on several occasions. In each of the various discussions in which it is involved it will not be necessary to restate and reinterpret this theory. When reference to it is made it will be recognized as a continual accompaniment of all discussions of personality. Such a theory clarifies the meaning of the unified personality, and reinforces understanding of the fact that the human being is a completely ordered and coordinated individual.

CHAPTER VIII

EXPLORING PERSONALITY

HAVING DEVELOPED a unified concept of an individual, we are now given the opportunity of exploring personality. How may such a task be carried out? Let us consider how we would proceed if, in the course of our ramblings on a summer afternoon, we came upon an old mansion on some deserted estate. Having made up our minds to explore the house, our first problem would be to find an entrance. But alas, each entrance is locked and barred, and try as we may we are unable to get into the interior of the house. We may look about the grounds as freely as we like. We may see the lay of the land and note the nature of the landscape associated with the house itself, and indeed we are most anxious to observe these features. But for the present our chief interest is to explore the mansion itself. What, then, may we do? We bethink ourselves of the windows. They are a little high, but some of them afford a splendid view of the interior. Dragging together what stones and pieces of wood we see, with some difficulty we mount first to this window, then to that. From each point of vantage we get a glimpse of the structure and the character of the house within. From this window we behold the living room, and from that the library. Then going round to the back we get glimpses of the kitchen. Although we cannot see through from the kitchen into the living room we know the living room is there because we have seen it through another window. So, by the process of partial investigation through windows, and by regarding the whole mansion from without, we are able to gain a tolerable notion of its internal relationships. There may

be certain deep recesses into which we have been unable to peer, such as the cellar and the pantry. Yet from what we know of other houses we may assume that they are there. Without gaining an entrance to our mansion we have secured a tolerable notion of its inner character.

Our procedure in the exploring of personality must be similar. The analogy, however, is not perfect. For personality is a living structure and we regard it not merely through a few sparsely placed windows. Theoretically speaking, the personality may be viewed from any of an infinite number of points. Actually there seem to be certain points of vantage or "windows" through which we find it comparatively easy to gaze. The process of exploring personality is largely the process of gazing through these "windows" whenever and wherever we may find them in order to learn whatever we may of personality itself.

In order to avoid the fallacies of separatism it will be convenient to maintain this figure of "windows" as vantage points for exploring the total personality. We may distinguish four such windows. They may be called the window of the mechanism, the window of thought, the window of emotion, and the window of the x. Let us consider how they may be used to give us glimpses of the inner nature of the man.

THE WINDOW OF THE MECHANISM

We may use the mechanism as one means of seeing into personality. This medium of investigation is probably the most obvious to the modern mind. It is somewhat peculiar and different from the others because it is material and may be objectively perceived. Its characteristic is that of easy observation. The mechanism is sensibly present to the observer and can be investigated with special definiteness and clarity.

The means or the methods of thus seeing through the mechanism into the personality are those of dissection and vivisection. It has been possible to examine in the most detailed fashion the actual structure of the mechanism. Various organs of the personality have associated with them various functions. The total personality uses the stomach to digest with, the feet to walk with, and the organs involved in speech to speak with. It further uses the nerves and the brain to assist in these processes, and in fact it uses the total mechanism and the remainder of the personality to effect these same ends of digesting, walking and speaking. We may not say that the stomach digests but that the personality digests, and so of walking and speaking. There is, however, a special sense in which the personality uses the stomach to digest, the feet to walk, and the organs of speech to speak. It would, however, be absurd if the dissectionist having cut off the stomach from the total mechanism should say that the stomach digests; so would it be equally absurd to cut off the nervous system and say that the nervous system digests, or again that the mechanism digests. It is none of these which do the actual digesting, for that is done only by the personality.

So are revealed the special inanities of behaviorism, which confines its studies to an investigation of the mechanism, insisting on the severance of the mechanism from the total personality.

THE WINDOW OF THOUGHT

The second window by means of which we may look inward at personality is the window of thought. Man has been described as a thinking animal. We might say that personality is a thinking plasm. We need not say what thought is, in order to say that it is an aspect of the personality, any more than we need to say what the mechanism is

when we say that it is an aspect of the personality. We are sufficiently acquainted with the meaning of the word thought. We know what we mean when we say "I think," or "he thinks." By an investigation of thought we may look deeply into personality.

The means of investigating thought may be termed introspection and extrospection. The term introspection is familiar enough. It applies to the process of looking inward at one's own personality. It is made possible by an attribute of personality which may be called the self-regarding attribute. This self-regarding power is sometimes attacked by psychologists of a certain brand. There can be no doubt that it indicates complicated relationships within the personality. How can one look at one's self? Yet the question may be asked with equal pertinence, how can one look at another? How may one use the power of extrospection, which may be defined as the process of regarding the thoughts of others? Is it then more difficult or less extraordinary that the personality should be able to regard the thoughts which are within itself than that it should regard the thoughts of others? If we are to lose ourselves in the intricacies of metaphysical problems we may encounter many difficulties concerning the use of introspection as a method. It is simpler and saner to recognize the self-regarding powers of the individual which are at least as plausible as his powers of regarding the material world. I may deny the material world in which I live, but certainly unless I do I need not strain a point to deny the thought which I introspectively apprehend. Certainly our own thoughts are as real to our own personalities as the food upon our tables.

By the method of introspection we may examine the processes of our own personalities. We may observe, take notes, record and pass on to others what we discover. Similarly by extrospection we may examine the thoughts of

others. Thus may we gain a fuller insight into the individual as a whole.

THE WINDOW OF EMOTION

The third window which may serve us to discover hidden things is the window of emotion. The personality experiences emotional overtones when engaged in the ordinary tasks of life, when one's labors are found "interesting" or "difficult," or when literature is found "stimulating" or music "soothing." The functioning of the personality is accompanied by aspects of its being which may be called emotional.

The chief means of knowing the emotional aspects of personality is sympathy. Sympathy is a special other-regarding power of the personality. We are able, as it were, to put ourselves in the place of others, to live and relive their emotional experiences with them. The key to this power lies partly in our introspective appreciation of our own emotions. These, however, serve but as a basis for our sympathetic approach to others. By means of this approach we are able to peer into other personalities and to gain a notion of the emotional implications of personality and of particular personalities which would otherwise be far beyond us. The technique of sympathy has been very much employed by the Freudians and goes far to explain their success in disentangling many emotionalized problems of personality.

THE WINDOW OF THE X

The fourth window which we may attempt to use in continuing our investigations is the window of the x. It is customary to use the symbol x to indicate the unknown. It is intended to be so interpreted in this instance. For it is impossible to regard personality completely without recog-

nizing the possibility of an unknown factor in its total structure. We may go further and say that this factor may be through mere psychological techniques unknowable. On the other hand, it may be reckoned present if its results may be detected. It is conceivable, although personality manifests itself only via the mechanism, that there may be certain phenomena of personality which we fail to recognize as manifestations of the mechanism. The ray of white light when broken up by a prism manifests itself merely as an entity composed of red, yellow, green, indigo and violet rays, yet beyond and invisible to the personality by means of the eye are still the ultra-violet and other rays. Just as the personality cannot detect these rays by means of the eye but can know their existence by the phenomena which they effect, so we may know the presence of the x factor in personality if we discover phenomena which must be attributed to it.

What shall we say, then, of the means by which we may investigate personality via the window of the x? Without preconceived notions of what we are searching for it is not possible to specifically designate the method to be used. It seems tolerably certain that it must be philosophical, religious or metaphysical. At the appearance of such words a chill will run down the spine of our orthodox present-day psychologist, with his preconceived antagonisms toward these fields of thought. But let us do away with such prejudices and such intolerance. We cannot afford to allow our narrow-minded pedantry to push us off the plain paths of life. Psychology has already suffered too much from those who shy at the shadow of a concept which does not fit into their private philosophy of life. Psychology need not fear the truth. In common with other branches of learning it must recognize its own limitations. The biologist exploring down to the very bases of living things, in search of the

cause of life, is baffled by a final x. Modern physics searching between the interstices of atoms and protons is hastening to proclaim that the final cause remains an x. Psychologists have too long hesitated to admit that in their investigations into personality they are ultimately confronted with that identical phenomenon. But unlike the biologists, the chemists, the physicists, and the philosophers, they have in their vanity retreated from this ultimate problem. The result is that with respect to this matter we find among psychologists only the silence of ignorance. In spite of the difficulties involved let us attempt to peer in at the window of the x. Let us not predispose ourselves to behold or not to behold. Let us witness what we see whether it has material or immaterial implications.

PERSONALITY TO BE CONSTRUCTED IN ITS TOTALITY

If we most carefully and diligently use the appropriate means of investigation in each of the cases discussed we should find much revealed from our psychological "window-shopping." But having massed all our evidence let us not forget the principle of mutual interrelationships within the personality which has been previously set forth. Let not those who investigate via the mechanism laugh to scorn those who study the manifestation of thought, and let not those who are specially concerned with the emotions cry out upon those who are studying the mechanism. Let each remember that every aspect of the personality which he reveals is only understood in terms of its relationships to the discoveries and revelations of those who are concerned with personality from a different angle. Let every psychologist remember that the phenomena which he notes are not to be soundly conceived until they are conceived in their relation to the total personality.

THE QUARRELS OF THE SCHOOLMEN

The bickerings and vituperation of the schoolmen of the Middle Ages were not more childish than those of our modern psychologists. These modern adherents of this school or that are but a newer and more laughable type of schoolmen. To their confusion and disgrace, let us revive our figure of the windows. Returning to the experience of our afternoon walk, let us suppose that each one of our group had insisted in looking into our ivy-grown mansion only through a single window. Climbing down from our supports we hold a conference upon the front lawn. You, having looked in through the front window, maintain that the inhabitants of this house were musicians for the wall-paper was decorated with lyres and cupids, and the piano was set in a prominent place. Our friend over there, having looked in at the library, insists that since the cases are filled with books, the head of the house is an author. I, in my pride, am ready to down everyone else, for having looked in at the kitchen I stoutly maintain that the people of the house are a family of cooks. Could anything be more ineffably stupid? And yet that is the play upon which our schoolmen of today are engaged. The social psychologists are so busy studying groups that they have no time for individual personalities. Looking in at the window of the emotions and peeking in at the window of thought the Freudians see nothing beyond. The Gestalt psychologists, and perhaps quite rightly too, refuse to look until the family moves back into the house, while the behaviorists can see nothing but the house itself. If all this quibbling were finished each of the combatants might have time to improve himself by finding from his fellow-workers what was to be discovered in the other rooms. Thus would he be enabled to form a complete concept of total personality.

CHAPTER IX

OBSERVING PERSONALITY

IN ADDITION to exploring the internal relationships of personality, that interior part of the acting individual himself, we may regard him from without. It is valuable to study the relationships of the personality to the surrounding world. An individual does not live apart. As he moves and lives in a multifarious world he is constantly coming into relation with its manifold aspects and realities. To see, to study and to know the various relationships between the individual and the environment in which he lives is still another pursuit of psychological investigation. Nor should we, in studying the environment, forget that there is a vast human world in which we exist. There are other human beings, individuals and groups, with which each one comes into daily relationship. This human part of the environment is worthy of much thought and study. The individual may be studied in his relationship to groups of men, and again the internal relationships within groups themselves may be studied, while group action as it is related to the material environment and to other groups may also be considered. A complete study of such fields of living would fill volumes. It might, nevertheless, be profitable to give some attention here to these various approaches in observing the individual.

OBSERVING THE INDIVIDUAL

Much may be learned by simple watching of the individual to see what he does and how he behaves. For personality is, to some extent, revealed by a consideration of its activities. An individual's activities are his ways of entering

into relationship with his environment. Finding the source of activity within himself the individual takes over active control of the environment. All individuals thus come into relationship with their particular environments, no matter what they be, in certain definite ways. Each person eats, drinks and sleeps. Yet we find that particular individuals eat special things and in special ways. The Chinese eat bean curd and rice, which Americans seldom see, nevertheless they do without cheese and milk. So the drinking, sleeping and other activities of individuals differ.

The method of observation soon leads to the consideration of instinctive behavior and individual differences. To what extent does behavior, which is universal, have an instinctive basis? Can pure instinctive behavior be observed in human beings? What is the specific behavior of individuals in certain specific situations? Wherein does it differ from that of others in similar situations? What assistance can be given by pure methods of observation in explaining the individual to himself? These and many other questions arise in a consideration of the nature and value of observational methods in the study of personality. Here, as elsewhere, the work of psychologists has made numerous and full contributions. Unfortunately, however, they have seldom been related to the larger problems of the total personality in any thoroughgoing fashion.

In observing personality it is of particular importance to consider not merely the individual's dealings with environment but the environment's reflex dealings with the individual. To what extent are the activities of the individual determined by the environment about him? This relationship between the individual and the environment may be symbolized by the relationship between the key and the lock. While the lock does not open the key, the key when endowed with energy may open the lock. The lock

fits the key, and the key fits the lock, but the lock may not enlist the activity of the key, whereas the key may enlist the activity of the lock. On the other hand, without a structural correspondence between the key and the lock neither energy, key nor lock, though all were present, would result in any act regarding personality as analogous to the key and environment to the lock. It is in a similar way that personality enters into relationship with the environment. There are times when the approaches of the personality seem to fit the parts or arrangements of the environment with which it comes in contact. When such a fitting or synchronization occurs the personality enters into relationship with the environment in an act. Finally, however, the key and lock analogy, like all other analogies with human personality, breaks down; for while the key cannot change the lock, human personality can alter the environment until it fits the person's own modes of approach. These complex relationships between the individual and the environment form a wide field for study. The modification of individual behavior so that the individual may be more capable in dealing with environment, the conditioning of the environment by an agent, human or otherwise, so that it will influence behavior of individuals, is a significant matter. By considering the approaches made by personality to the environment, and by further considering particular patterns within the environment which harmonize with personal approaches, the psychologist has much to learn.

THE INDIVIDUAL RELATED TO OTHER INDIVIDUALS

From one point of view other human beings who surround the individual may be regarded merely as parts of the general environment, yet being individuals of like nature and animate they need special consideration. It is only by means of their association with other individuals

that men are born. Through birth and early life the individual is still closely dependent upon the mother. Later he is dependent upon both parents. As this dependence breaks down the individual enters into still other relationships with other individuals, and from the relationships spring up series of dependencies. Upon the proper establishment of these relationships to other individuals depends much of the personal adjustment of the individual to life. A study of such developing relationships by psychologists who have emphasized the importance of the early life of the child has already contributed much to psychological understanding. So still another branch of psychology has made its contribution to the general study of personality.

But one does not always come in contact with single individuals. One must deal with individuals associated by some common interest into what is called a group. The earliest groups with which one associates are the play groups of childhood. To these groups one makes initial adjustments which mark out the pattern of one's later life. One domineers, leads, fights, submits, or follows. There are similar dealings with the groups of older individuals whom one meets later on in school, in church, in business, in the world. The way in which one enters into relationship with these groups, the study of social relationships, is a continually fascinating field of investigation.

The structure of the group itself is to a large extent still unexplored. Here is a larger group composed of a number of individuals entering into voluntary relationship upon some common basis. It may be a school board, concerned with certain important deliberations on the public schools, it may be an international conference of diplomats weighing the armament of the world, or it may be a simple tea party in which some friends meet to enjoy one another's company. In any case there is much to consider. What are

the bases of relationship? How does the individual enter into them? Is the group structurally homogeneous, or has it centers of special activity? How does its total function compare with the total function of a single individual? Does the group structure partake of qualities and characteristics which are not present in the individual personality as it acts alone? Does the mob act as the individual? What is the nature of group thinking? Is it more thorough, more comprehensive than that of the individual? These and a hundred similar questions may be asked of individuals associated in groups.

The ways in which groups act and react, the coöperation and oppositions between groups, are matters of urgent interest today. Upon such relationships hang the issues of war and peace. Must groups war with one another? If so, what are the group conditions which make war inevitable? If not, what social structure must replace the social institution known as war? Such questions and many others wait for their solution upon the study of interacting groups.

SHIFTING POINTS OF VIEW IN PSYCHOLOGY

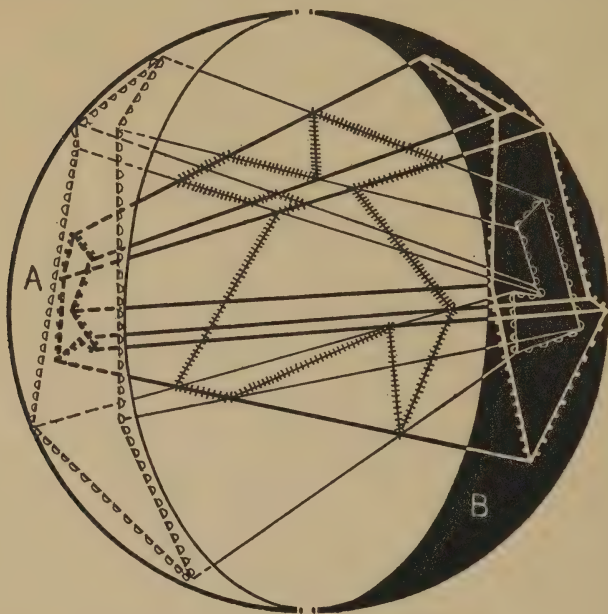
The various ways of regarding psychology which have been discussed in the previous two chapters call particular attention to a characteristic of psychological method. In the study of personality, the shifting of the point of view on the part of the investigator is essential. The first thought of the psychologist may be that he should take up his station in one place or another and stand pat while he views the performance from his point of vantage. This attitude toward psychology is a most unfortunate one. In viewing a landscape from an established center such procedure would be valid. But personality has no such established center of observation. The observing psychologist must view it from without. He is consequently compelled to view

it from all available points of view. Having done so, it is his responsibility to relate what he has seen from one angle to that which he has seen from another. He must welcome rather than shun the process of shifting his post of observation.

Unfortunately for those who love simplicity and formal order such a method of shifting the point of view results in much cross-cutting and overlapping. It is customary among those who think and write to regard with horror anything in the way of an overlapping classification. This is still another of those fallacies which result from an adherence to formal logic. What is desirable in the classifications of branches of learning which deal with life is not a series of categories which do not overlap, but rather ones which provide differing points of view. Categories which are constructed to secure the complete isolation of one class from another are desirable if learning is to exist for the sake of learning, if categories are to exist for the thinker's joy in categories. If, however, classifications are made for their usefulness to men, and if they are made to assist us in living, overlapping of classes is not always to be avoided.

So far from avoiding overlapping points of view, the psychologist should rejoice in them. For this very overlapping and cross-cutting furnishes him with the very opportunity which he desires to study the internal interrelationships within the personality. The basis of an entity should be structural. Whenever we discover a pattern we may regard it as an entity. Categories which do not overlap connect with one another only through some basic stem which should represent the philosophic basis of the division between the two categories. Categories which overlap, however, provide an easy means of egress from one class to another and so set up bonds of relationship which are invaluable in understanding the total structure. If we picture

the personality diagrammatically we may imagine lines drawn from a section of the periphery of a sphere which we are regarding, inward in all directions. If we now regard still another section of the periphery and imagine in this second case that lines are similarly drawn inward in all



A indicates 1st section of Periphery

B indicates 2nd section of Periphery

ooo Pattern made by end points of lines leaving A

ooo Pattern made by end points of lines reaching B

ooo Pattern made by end points of lines leaving B

ooo Pattern made by end points of lines reaching A

ooo Pattern made by intersections of lines from A and B

directions, then these lines must cross and intersect the lines from the other section of the periphery. Thus we find ourselves much advantaged in the study of internal structure. Not merely may we study the patterns revealed by the end points of the lines extending inward from each

section of the periphery, but we may in addition study the patterns which are discovered by the intersections of the two sets of lines. This is of immense value to the student of psychology. Since in life we must regard personality from all angles, we must be interested in all the patterns and relationships which are visible from each angle. Since life, which we must continually regard from different angles, presents infinite overlapping, cross-cutting and interrelationship with an ever-new array of patterns, so will psychology serve us best by a similar approach to personality. If psychological categories be not logical and academic they will yet be intelligible and practical.

CHAPTER X

THE CENTER OF PERSONALITY

THE PREVIOUS parts of this discussion have concerned themselves with the development of the notion of personality as a structural entity. In order to develop this notion of structure it is desirable to discover the center of personality. Is there any nucleus or center of personality which may be specially significant or essential?

Such a central or fundamentally essential characteristic may be found in the self-directing powers of the personality. This may be regarded as the functional characteristic of true *I*. There is something basic and irreducible about this self-directing power of the true *I*. Personality is an entity which is self-directing, which manifests itself by means of the life force suffusing and animating the mechanism. If from these basic elements of personality we choose any which may be regarded as central, it seems obvious that this must be the self-directing aspect of the life force. Without it, it would be impossible to conceive of personality as a separate entity entirely individual and different from every other human being. There is something unique, essential, and inescapable about this self-directing character of the *I* which makes it inevitable that we choose this quality as its fundamental characteristic.

We must here closely distinguish between personality and animality. There is a certain sense in which even a mere animal may be regarded as self-directing. An animal, even an amoeba is, as well as a man, a living entity. To a certain extent every separated creature may be regarded as a self-directing entity. The lowest of the animals may be regarded as endowed with the power of choice. Thus the

ox may choose one road or the other, the mule may choose no road at all. In this colloquial sense the qualities of animality may still be regarded as fundamentally self-directing.

Animal behavior has been the delight of the behaviorist and the physiological psychologist. They busied themselves with dissecting it and reducing it to mere mechanical function. They have plotted with mazes and planned with coops and cages until they have seemed to reduce the ways of the ox and the ass to those of pure mechanical response to the environment. In doing so, however, they have been compelled in their last line of defense either to rule out any dynamically functioning life force or at least to regard it as a mere phenomenon of structure. If, says the mechanist, we can arrange the atoms of the chemical elements and the space relations to each other which they occupy in the fertilized ovum of a man and place this body in a proper physical environment, it would develop into a man. But categorical affirmation is every whit as valid as categorical denial. It is quite as logical and reasonable to affirm the self-directing powers even of an ox as to deny them. Furthermore it is very much more in accord with general experience, for no living man has ever succeeded in making his most intricate structure live and react to the environment. He has failed to endow his creation with the force and power of life which endows even the balking mule with power of choice. If the almost infinitely cunning devices of man cannot deliberately arrange a proximity of elements into a pattern which will arise and live, how then can pure chance attain such a result?

The proponents of mechanistic theory do not end their theorizing by their interpretations of animal behavior. Taking over the same theory of animality they apply it to personality. Personality, with its higher degree of complexity, is but a more intricate form of animality. But in

the environment-controlling activities peculiar to men are still further evidences of the self-directing choosing power of the I. If for two hundred years a tribe of monkeys had lived in the forests of a hospitable island, at the end of that period not only would the new generation of monkeys be living exactly like their forbears, but the island itself would continue virtually unchanged. But a tribe of humans in a like period of time have changed not merely the whole surface of Manhattan Island, but have altered their own ways of living to suit themselves. It is in this environment-changing power of man that we discover his self-directing and environment-dominating powers. Persistent mechanists may still regard these higher phenomena as mere structural environmental reactions, as those of human beings remaking their environment. Such complex reactions without the self-determining positivism of the I are actually inconceivable to the careful thinker. When we consider the reality of the life force and its positive domination of the environment, the balance of probability leaves no choice but that of the self-directing powers of the personality. So much active striving cannot be without end and goal.

Let us observe this self-directing power functioning in the life of the individual. Awakening in the morning Mr. Babbitt, a lumber merchant, considers the question of arising. It is Monday morning, and he has an active week before him. Although he feels drowsy he shakes off his sleepiness and jumps up. At breakfast he chooses toast rather than bread. He rejects oatmeal and accepts the proffered omelet. Breakfast over he is in a hurry to get to work. From his desk he quickly picks out several papers from among the others, puts them in his brief-case, and dashes for the door. Consulting his watch he discovers that he is five minutes late. Shall he take a tram or a subway train? The latter is quicker, but it involves more strenuous walk-

ing. He chooses the latter. At the office he is soon involved in his work. His secretary brings him a set of letters. Looking them over he sorts them for attention. Some of them he decides to answer personally. As he dictates the phone rings. It is a business call for a larger order of lumber of a certain type than he has on hand. Delivery must be made the same day. Is it possible? It means instant mobilization of the whole firm on an emergency basis, and even some risk of failing to make a promised delivery. Shall he chance it? For a moment he wavers. Then quickly he makes up his mind. "Yes," he snaps into the phone, "we'll do it." Instructions are given, orders sent out to employees, directions involving dozens of choices are issued. The life of Mr. Babbitt becomes a veritable hurly-burly of activity and bustle, which never ceases until he leaves the office at night. The day has been one of endless alternatives. From each of these pairs of alternatives Mr. Babbitt selected one. As he selected his life force flowed in the direction indicated by his choice.

Strenuously as the recognition of any self-directing power of the personality may be opposed by the philosophical and metaphysical psychologist, it is an admitted phenomenon of our everyday life. The very modes of our language indicate its universal recognition. The personal pronouns which are an integral part of every tongue which is spoken, the *I*, the *you*, and the *him*, bear witness to it. Their predication by the use of the verb, *I do*, *you do*, *he does*, carries the evidence further. The language is full of words, the meaning of which depend upon these conceptions. Consider our account of Mr. Babbitt's experiences. If we should delete from that brief account each word which depends for its meaning upon the self-directing power of the personality, we would be forced to cut out "shakes off," "chooses," "accepts," "rejects," "picks out,"

"sorts," "decides," "makes up his mind." Without this facing and solving of dilemmas what a drab life Mr. Babbitt would lead! It is obvious that if we must relinquish our concept of self-direction all literature must be rewritten and there must be drastic revision of the vocabulary and structure of the English language. Worse still, we would have to give up our notion that we take any deliberate part in anything which goes on in our world of trials and illusion.

There are nevertheless those among psychologists who would energetically oppose the conception of a self-directing quality resident within the personality. The reason is connected with their concept of will. Certain psychologists attempt to construct a mechanistic conception of will. This quest of the psychologist is of the same order as the mathematician's attempt to square the circle. The statement of the problem involves a fallacy, as a result of which its solution is impossible. It reminds us of the old question, "What happens when an irresistible force meets an immovable body?" It is a contradiction in terms. For a mechanistic conception of will from which the self-determining factor is removed would be no will at all. It would be a "will" without a will. The psychologist who attempts to form a mechanistic conception of will had better deny the very existence of will or what he sometimes calls "wills."

We must suspect such doubting psychologists of having a metaphysical "axe to grind." Having been led away to embrace physiological psychology, or sometimes its fanatical brother, behaviorism, they have become embroiled in its materialistic conceptions. These branches of psychology are concerned with the mechanism of personality. Engaged upon these grosser aspects they can see no others. They remind us of those travelers who from gazing upon vast expanses of snow, suffer snow blindness from its reflected

glare. The field of physiological psychology has become so wide and its discoveries so brilliant that some of its adherents have become psychologically blind to the truth which lies beyond. They are prone to deny what they cannot see. They have thus been tempted to cut off the mechanism from its alliances in the total personality. Eager to effect this severance, they hasten to conclude that personality is identical with and limited to the mechanism. For they have by this time become metaphysical. They have settled down to a philosophy of materialism and they must make their psychological data conform to their fundamental philosophy. Materialism has become the center of their universe and much as they decry the philosophical and the metaphysical, yet the metaphysical and the philosophical become the touchstones which they use. Deceiving themselves, they make their own metaphysics the point of reference in denying the validity of metaphysics. They deny the self-directing power of personality because the concept of "free will" does not square with their puerile philosophy.

CHAPTER XI

SELF-DIRECTING PERSONALITY

THE SELF-DIRECTING power of personality is not to be regarded as coördinate with its several other powers or functions. For the true I, with its characteristic function of self-direction, is unique in its relation to the total personality. This unique relationship will distinguish the point of view here set forth from the faculty psychology of Aristotle. Faculty psychology has held that the personality is composed of several coördinate faculties such as memory, imagination and will. The present intention is very different. The self-directing function of the personality should not be regarded as one of a number of comparable and coördinate faculties. Nor should it be regarded as any faculty at all. Such an interpretation would be most misleading. It would be the result of carrying over a habit of mind which the interpreter had used in his previous study of psychology but which is not suitable here. So far from being regarded as any separate faculty, the self-determining power should be regarded as identical with the functioning aspects of the total personality.

This functional relationship of the self-directing power with the total personality requires separate consideration. The I, with its self-directing function, while it has been called a center or nucleus, must be only figuratively so regarded. It cannot be thought of as a center or nucleus of any location. We have discarded the concept of spatial relationships within the total personality and must allow it to remain in the discard. The true I is functionally central. Actually the self-directing power must be regarded as contiguous with the total personality.

This concept of the self-directing function as contiguous with the total personality needs further clarification. Let us use as an illustration a room at a temperature of seventy degrees. Looking in at the room nothing appears to the outward eye to pervade the total contents of the room. The table is mahogany, the curtains are silk, the panelling is oak and the rug is Persian. There is nothing visible in the room which would make us think of the various articles which it contains as being in any sense homogeneous. The room appears to us as an arrangement of heterogeneous and separate articles. Yet pervading the whole room and all its contents is this one uniform characteristic of a temperature of seventy degrees. A temperature of seventy degrees is contiguous with the room itself. If we regard the room as an entity we may say that the temperature is contiguous with the entity. It is something of this sort that we mean when we say that the self-directing function is contiguous with the total personality.

In a previous section reference was made to the complete set of relationships known to exist within the mechanism. This is similar to the set of relationships within a telephone exchange in virtue of which every telephone is related to every other telephone. The structure of the cortex reveals its nature as a projection surface upon which every part of the mechanism is reflected. From this we gather that every other point of the mechanism, by virtue of its relationships to every other part via the mechanism, must also reflect every other part of the mechanism. By extending this idea of complete complex interrelationships we discover that phenomenon as a principle on which to base our conception of personality.

In a similar sense the I and its self-directing power may be regarded as contiguous with the total personality. Again this is not in terms of spatial extensity, but in terms

of relationships. The self-directing I may be regarded as being coterminous and in a sense coincident with the personality. At any point in the personality the personality itself may be regarded as being in complete relation to all other parts of the whole via its self-directing powers. The self-directing function is thus represented at every point in the total personality. It is in complete connection with the total I, which pervades the personality at each and every point, whether these points be regarded as separate points or as a pattern of any sort.

THE DIVISION OF THE PERSONALITY

It is interesting to note the way in which such a conception of contiguity, coincidence or complete mutual interrelationships obviates the necessity of the numerous theories advanced to explain certain mutual relationships within the personality.

The attempt to divide the personality into parts into which it is not actually divisible precipitated numerous problems of relationship. One of the most common of these theories of relationship between mind and body, the theory of psycho-neural parallelism, is at the basis of present-day physiological psychology. This theory supposes that the mind and body, being quite distinct from one another, do not influence each other in any degree or at any point. Rather is it supposed that every event in the brain tissue is accompanied by a mental event, and vice versa. The two streams, mental and neural, run continually parallel to one another, but in complete independence, like two clocks, back to back, keeping time.

What is the nature of the error into which the parallelists have fallen? In the first place they have made the mistake of regarding the mind and the body as separate entities. Such a broken state of affairs is not to be tolerated, so

our psychologists appear busily at work with their psychological paste pot and attempt to stick together the pieces by means of the paste of parallelism. But herein lies the difficulty. Having once predicated the separation of mind and body how shall they now unite them? They seek for a theory which at once unites and parts. The mind and the body are separated in terms of space but related in terms of parallelism. Thus do the psychologists attempt to interpret the intangible in terms of the tangible. A mathematical and spatial figure is used to interpret the relationship between "mind" and "brain" just as if that relationship were material and spatial. By this time we have reached a pretty state of confusion which has distorted and falsified the whole field of physiological psychology. Much better not to have severed mind and brain in the first place. Then there would be no need of the "seventeen" theories of relating them once more.

This incessant separatism has done infinite harm to psychological thinking. In conceiving of personality we must strictly adhere to a theory of identity. Personality is not capable of internal division. This situation is dramatized as we look at a friend. As we regard him he is to us a unified whole. We do not address first his body via the ear, and then his mind via our thoughts, or his emotions by our affectionate approach. On the contrary, acting as an entity we deal with him as an entity. His "mind," his "body," or whatever sectional part of him thinkers have attempted to conceive as separate are obviously not separate but identical. He is our friend. The relationships which exist within him are those of complete mutual interrelationships amounting to identity.

Such is the general relationship of contiguity or complete mutual relationships which the self-directing power bears to the total personality. Its central or regnal relation-

ship already indicated is also important. Figuratively we might say that the true I, with its self-directing power, sits on the throne of personality. It holds sway over the total functioning of the phenomenon. In this reigning function, which enters into every act of the individual, the self-determining power of the personality is unique. No other function of personality is characterized by this headship or overlordship. The dominance of the true I is the unique central function of personality.

On the other hand, however, we must beware of letting our figure of speech carry us away. In speaking figuratively of the true I upon the "throne of personality" we must beware of carrying over too much of the figure. The function of the I may be regnal. We may recognize this function. But we must not be guilty of a new separatism in our conception of the I. It is still to be thought of as integrated and related to the rest of personality in terms of complete mutual interrelationships. In other words, we are attempting to isolate a concept, not an organ or a material entity. Thus we should strictly avoid any tendency to think of the I as a separate person, or an "engineer at the controls," or "that strong one up there." The I is not a sub-person, a super-person, or any person at all. This is particularly difficult to grasp, since our apperceptive approach to the subject is likely to be in terms of well-defined and familiar spatial and material entities. This description of a function which lacks the familiar characteristics of size, shape, material substance and locality makes the concept of the I difficult to grasp. On the other hand, we need this concept of the I for its functional value. But let us think of the I as a function, not as some abstruse and hidden individual.

An understanding of the dominance of the true I within the personality is the key to the understanding of human

conduct. It is only in virtue of this dominance of the self-directing power of personality that a man is able to rise above himself. In the greatest acts of life—the building of some colossal tower, the overcoming of some insidious temptation, the rising from sickness into health—it is the self-direction of the life force which is central and fundamental. When, from the very deepest recesses of himself, any child or man basically determines to do, his whole personality rising to the occasion builds into highest and fullest accomplishment. Here is the key to a man's learning and doing.

If we are to understand human conduct with any degree of thoroughness we must realize that the self-directing power is in the background determining all the processes of personality. It is the governing factor in the intelligent control of conduct. It guides and limits the process of habit formation. It influences the regulating function of the emotions, it determines the process of seeing reality. Purposing proceeds only in accordance with it, and the reordering and remaking of the individual's own life patterns go on only under its direction. Thus the self-directing I is at the basis of all the acting and learning of the personality.

THE DOMINABILITY OF THE I

Strangely enough, however, the dominating or ruling I may in its turn be dominated. Since the personality is itself a whole there can be no contradiction in the fact that any aspect of the personality may be the origin of an act and may suborn the functioning powers of self-direction resident in the total personality. This phenomenon may be termed dominability. The term is framed to denote the passive nature of this characteristic, for description is often the duty of psychology, not explanation. Fundamental explanations are missing in every branch of learning. If we

can but discover sound descriptions of conduct we can do much to understand and direct it. Such has been the hope which has inspired the work even of the "scientific" psychologists, whose $S \rightarrow R$ formulas, incomplete as they are, provide descriptions rather than explanations of ordinary human acting and learning. For within the personality lies the power of assuming control of its self-directing function. The I, in virtue of its quality of dominability, may submit its determining powers to any aspect of the personality which makes use of them. In other words, there exists a complete set of relationships between the I and all other parts of the personality, in virtue of which any part of the personality may become self-determining by making use of this function of the I. The function of dominability will be better understood by the following discussion of the corresponding function of domination.

THE THEORY OF DOMINATION

Reciprocal to the theory of the dominability of the true I is the theory of domination, or the process of dominating. Dominating is that process of the personality in virtue of which any point in the total personality may become personality-determining by assuming control of the functioning powers of the I. Thus any part of the personality may become temporarily dominant and assume control of the total personality. To state the same thing in another way, any aspect of personality may enlist the self-directing function of the I in controlling the total life of the individual. Any part of the personality by becoming dominant may suborn and activate the I.

Several illustrations will indicate the occurrence of the phenomenon of domination in everyday life. The weary student is at work at his Greek translation. At the stroke of midnight he says to himself, "I haven't finished, but I'm

tired out. It's time to go to bed." So he puts aside his books, retires and soon drops off to sleep. His mechanism, with its need of sleep, takes over control and demands that the tired mechanism refresh itself.

A novelist has decided to take the afternoon off. He travels to his country club, launches his canoe, and paddles out lazily in the sunshine. Slipping into a cove he arranges the cushions in the canoe and prepares to take a quiet nap. Just as he is about to lie down his attention is attracted by a dinghy in midstream. A sudden squall has sprung up, and the dinghy, caught unawares, instantly capsizes. For a thrilling moment the fate of the girl in the dinghy is in doubt. But several rowboats hurry to the scene and the young lady is rescued. The incident is over in a few moments, but it has awakened an idea in the mind of the author. He has been dealing with a knotty problem of relationships in a novel he is writing. He realizes that the incident of the dinghy has given him the key to the problem. He thinks, "Change the dinghy to a yawl, change the scene to the coast of Genoa, let Angela's yawl capsize and let Sebastian rescue her in his speed boat." The train of thought continues until it dominates the situation. Realizing that it is essential to make some notes he reaches for his pencil. But there is neither pencil nor paper in his outing suit. The affair is pressing. Launching the canoe he returns to the opposite bank, drives home and works upon his novel for the rest of the evening. Now what have been the psychological processes involved? The thinking aspects of the man's personality have assumed domination and control over his whole being.

Again, let us recall a familiar passage from *Alice in Wonderland*. Alice has been quietly chatting with the brothers, Tweedledum and Tweedledee. She has patiently listened to the recitation of "The Walrus and the Carpen-

ter." The three have visited the Red King in his slumbers and all is peaceful enough.

"—she was just going to say 'Good-night' and leave them, when Tweedledum sprang out from under the umbrella, and seized her by the wrist.

" 'Do you see *that?*' he said, in a voice choking with passion, and his eyes grew large and yellow all in a moment, as he pointed with a trembling finger at a small white thing lying under a tree.

" 'It's only a rattle,' Alice said, after a careful examination of the little white thing. 'Not a rattle-snake, you know,' she added hastily, thinking that he was frightened: 'only an old rattle—quite old and broken.'

" 'I knew it was!' cried Tweedledum, beginning to stamp about wildly and tear his hair. 'It's spoilt, of course!' Here he looked at Tweedledee, who immediately sat down on the ground and tried to hide himself under the umbrella.

"Alice laid her hand upon his arm, and said in a soothing tone, 'You needn't be so angry about an old rattle.'

" 'But it *isn't* old!' Tweedledum cried in a greater fury than ever. 'It's *new*, I tell you—I bought it yesterday—my nice *new* RATTLE!' and his voice rose to a perfect scream." ¹⁷

We need not continue the quotation, since everyone remembers the incidents which ensued: how, mastered by his rage Tweedledum insisted on having a battle with his guilty brother, how Alice was compelled to tie on the pots and pans which were produced to fulfill the function of armor. It is the classical picture of one who is dominated by his own emotional overtones.

The personality, via any of its aspects, may determine the total course of the life force for a time. The moment

any pattern within the personality becomes dominant it may seize upon the functioning power of the I and by this means control the form in which the life force manifests itself via the mechanism.

CHAPTER XII

FUNCTIONING PATTERNS

REFERENCE has been made to the way in which a pattern of the personality may dominate the total personality. This concept of pattern needs careful description. A pattern is any set of points within the total personality which become specially and temporarily related to one another during action. When a child sets off a firecracker, at the moment of touching the match to the fuse the child's personality falls into a pattern. This pattern includes all the aspects of his personality which fall into special active functioning at that moment, including the position of his fingers, his emotional set-up, the position of the muscles of his face, the thoughts he entertains, the vision he sees of what is about him, and every other functioning aspect of his personality. These are all linked and tied up in a psychological cross-section about the act of lighting a firecracker. Such a set of linked-up and tied-up points within an individual may be called a pattern of personality.

Patterns occur in an individual at any moment. As he takes down the telephone receiver to call a friend his personality falls into a pattern about that act. As he takes down the canoe from its rack preparatory to a trip, or puts on his skates, or takes down his rifle, his personality falls into a pattern. The pattern includes a linkage not merely of one or two aspects of personality, such as his muscles and his spinal cord. It includes a linkage of every aspect of his personality: his ideas, emotions, muscles, hearing; in fact every aspect of his being which is functioning at that moment is linked into a psychologically related pattern. Furthermore, whatever affects one aspect of this pattern affects another.

At any given moment of the life of the individual there is an organically linked set of functional points which in their psychological relationship may be called a pattern.

In the case of the sleepy student referred to above, at the moment at which the student ceased studying Greek and began to go to bed we may recognize within him a new pattern. This pattern is that series of points in his personality which at the moment of change fell into active mutual relationship. It involved points in his personality concerned with tiredness of the mechanism, the hearing of the clock strike twelve, the recognition that his task was practically completed, the thought that it was now bed-time, and whatever may have been the other parts of his personality functioning at that instant.

Just any group of points in the personality may not, however, be arbitrarily grouped together and regarded as a pattern. Speaking in terms of mathematics or logic, any set of points may be linked together and termed a pattern; but such patterns have no psychological significance. The points which are linked together to form a psychological pattern must form a whole which has psychological significance.

Patterns which have once become functional become resident in the personality. For example, when we say, "George is playing a nocturne on the piano," we assume certain functioning patterns in George's personality. It is only in virtue of certain resident musical patterns that George will be able to play the parts of the nocturne which are ahead. When we say, "George has memorized the nocturne and will play it for us when we are near a piano," we assume the presence of certain resident patterns which have functioned together in the past and will tend to function again in the future. Thus are the experiences of an individual stored up. As his personality falls from moment to

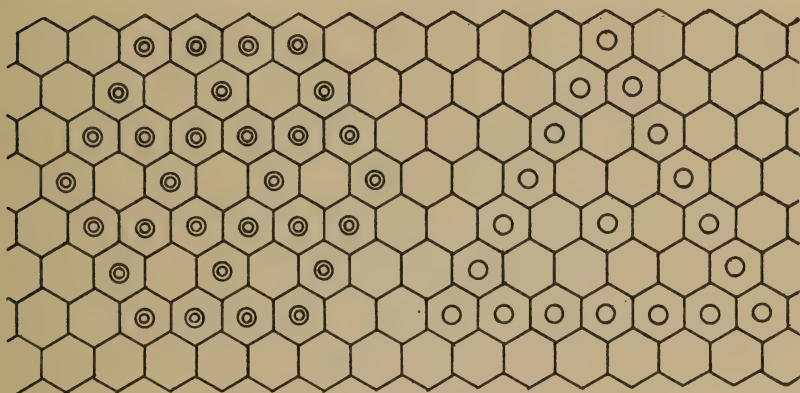
moment into new functioning patterns, those patterns become resident in his personality and tend to reappear under the direction of the I.

A pattern, to have psychological validity, must issue or tend to issue in some drive to action. Thus when any pattern occurs the personality tends to do something as a result of it. When the student said "time to go to bed" the pattern concerned dominated the I which in virtue of its self-directing function carried out the action, that is to say, the result of the pattern issued in a drive to action. A strong man lifts a heavy weight in virtue of the patterns which issue in a drive. A mathematician solves a difficult problem in virtue of certain patterns issuing in certain drives. We say that such men are strong men or good mathematicians. In so doing we intend to indicate that certain patterns have previously, in the personalities of these men, issued in actions indicating strength, ability to do mathematics or some other specialized form of accomplishment. It is its association with a drive which validates a pattern.

There is a distinct relationship between patterns of the personality and patterns in the environment. An individual seems to see patterns in the environment. As I paint a fishing shack and a wharf running down to the cove I seem to see a pattern. As I examine a snowflake, or look at the George Washington Bridge or scan horizons from the top of the Empire State building I seem to see a pattern in the environment. As I study the heavens at night I see the Dipper, Cassiopeia or Scorpio in patterns which seem to be there but are not, so that I long to see the heavens as they are rather than as I see them. Perhaps the ultimate goal of science is to discover designs in nature which are independent of our ways of beholding them.

We may think of patterns in the environment in two

ways. There are patterns such as those of the snowflake which would obviously be designs whether we beheld them or not. There are, on the other hand, those patterns which exist as patterns simply because we see them so. In the following diagram, for instance, a multitude of patterns may appear, according to the way in which we look at it. We may see hexagonal spaces, circles, six-pointed stars, triangles or a dozen other simple designs. The small double circles and circles merely aid the eye to see what may be seen without them.



It is clear that the pattern we see depends upon the psychological pattern in relation to which we regard it. A further discussion of patterns of the environment will be given in Chapter XV. For the present special consideration is being given to the nature of a pattern of personality. Personality may be thought of as moving forward in a continuous stream of changing patterns analogous to the changing patterns on the screen in an ever changing moving picture.

NEURAL ATOMISM

We are now prepared to discuss a form of interpretation of behavior very familiar to teachers and to other

students of American psychology. It is used by the physiological psychologists in their interpretations of human conduct. Reference is made to their scheme of interpreting conduct in terms of the $S - R$ bond, a form of description which, because it tends to break conduct up into the atom of behavior, may be called neural atomism. Basing their study upon the science of neurology, these psychologists made the nerve chain or neurone chain the basis of the unit of behavior. This has resulted in an over-simplification of the performing and learning act which has been described in the simple terms of situation-bond-response, $S - R$. According to this interpretation there is associated with each functioning chain of nerve cells or neurones a situation which exists in the environment capable of setting off action via the nerve chain and securing a response from the individual. The whole is analogous to the ringing of a distant electric bell by a push button. The push of the button corresponds to the situation in the environment, the wire to the nerve chain, and the ringing of the bell to the response of some end organ such as the eye in seeing, or the hand in writing. This combination of situation (S) response (R) and bond (\rightarrow) is treated as the atom of experience and written $S \rightarrow R$ (situation-bond-response).

An example or two may make the matter clearer. Suppose that an individual strikes the typewriter key marked N . This bit of conduct may be analyzed as follows: The situation was the presence of the key marked N , the response was the striking of the key N which was done by the individual, the bond was the chain of neurone cells which carried in the perception of the key marked N through the end organs resident in the eye to the spinal column and thence to the upper brain (where the neural current was redirected) and thence out again to the end organs of the muscles involved in striking the key N . In a similar way,

as an individual writes a letter to a friend each key may be regarded as a separate situation in the environment, the striking of each key may be regarded as a response, and each chain of neurones which functions in the carrying of afferent and efferent impulses may be regarded as a bond. So, on the basis of the neural atom of behavior, all conduct may be analyzed to the extent to which the situation and the responses involved may be known. In such a way the thinking responses and imagining responses, in common with all other responses, might be similarly analyzed, provided that the constituent elements of the situation and the responses involved be known.

So much for analysis in terms of these neural atoms or "S \rightarrow R bonds." But what of the problems of synthesis? While bits or parts of conduct may be understood in terms of such neural atoms the unified conduct of individuals as it actually issues in behavior has not by this method been adequately described. There has been a blurred description which has been accomplished almost unconsciously by the physiological psychologists when they have allowed themselves the greatest freedom in what have been called situations and responses. A situation might be an environmental pattern as narrow as a *piano-key* or as wide as *the general atmosphere of a fine sunny morning*, and the corresponding response or personality pattern as narrow as *hitting the key* or as wide as *going for a walk in the park*. Thus did the neural atomists unwittingly express their need of the concept of patterns. Supplemented and related to the total personality via various patterns the analyses of the physiological psychologists are most illuminating. We might derive some such analysis as the following:

Patterns within and related to the total living personality via the process of domination may issue in drives which by means of the neural aspects of the mechanism bring the

personality into relationship with patterns in the environment.

The physiological psychologist, from his position outside, looking into the total personality via the window of the mechanism, attempted to explain responses in terms of the environment. He thus sometimes falsely conceived of a dynamic force which seemed to lie resident in the environment. He virtually believed that a pattern in the environment was endowed with some potent force to secure a response pattern in an individual. There is, however, no such force. This fallacy is due to the failure of the psychologist to look deep enough into personality to detect in each case of conduct a pattern within the personality which in turn is related to the personality via the life force. Forgetting the pattern he forgot the life force which, issuing via the response, brings the personality in contact with the environment. So he reversed the direction of the psychological process. In other words, he tended to make the environment a dynamic subject and the personality a passive object. He tended to find the drives of personality in the environment in some mystic undefined force which was never explained or even clearly isolated and named. This supposed force he substituted as an inward flowing force for the outward flowing of the life force. He was thus inclined to regard man as a "creature of his environment" and to treat the individual as a puppet pulled this way and that by strings directed by the environment.

Once more we see the way in which conclusions are wrapped up in premises. Beginning with the severance of the mechanism from the life force his conclusions remain mechanistic and deny the existence of any life force proceeding from the personality. In order, however, to galvanize his theories to make them fit the active nature of personality he is compelled to animate them by the false notion

of a dynamic environment. If we stick unswervingly to the observable phenomenon of a living total personality we can never escape the reality of the life force. If the concept of patterns related to the total living personality be related to the findings of physiological psychology, one of the clearest descriptions of human conduct which psychology may offer will be the fortunate result.

IMPLICATIONS FOR TEACHING

These partial and piecemeal theories of the physiological psychologists have played great havoc with the work of those directing acting and learning. The so-called science of education has deluged a bewildered teacherdom with endless studies of atomistic learning. We have learned of the rate of learning, transfer of training, comprehension in reading, speed of reading, number of errors in arithmetic. Responses to small elements of learning have been studied without cease and without hindrance until it would defy the powers of a genius to put them together again in any plan of teaching. This analytical conception of learning has considered anything a situation and anything a response, independent of the part which such elements have held in any total pattern of learning. Consequently the scattered advice of psychologists spread throughout ten thousand studies, and theses and reports and annals have become too diverse to be of practical value to the earnest teacher involved in the whole problem of the child's approach to his spelling or his arithmetic or perhaps both of them. What teachers need is a unified notion of the way children learn, not an intermittent and unrelated description of errors and successes. We need a study of whole learning situations, not unrelated and exploded scraps.

But the error of trusting a dynamic environment may be even more pernicious than atomistic descriptions of

learning. It has resulted, even in some of the best of our experimental and "progressive" schools, in an attitude toward children which is little less than vicious. Children have been regarded as organisms to be directed by psychological manipulation of the environment. In our older schools, textbooks with problems in arithmetic, or spellers with formidable lists of words, have been regarded as the environmental elements to conjure with. Textbooks and lessons have been supplied and applied and children have been expected to respond to them. In modern schools the environment has been "set" and conditions arranged to prick children to action. There has been throughout insufficient emphasis on the choosing and controlling personality of the learner. Children have been thought of as automata controlled by an environment in a cold and steely fashion. They have not been sufficiently regarded as little people reaching out to dominate an environment, human beings in whom the life-giving enthusiasm and regard of the teacher may awaken a newer and fuller richness of eager learning. We still forget the word *love* given to us by Pestalozzi, and damaged so severely by Freud. Certainly we must not mechanically set our environments, but we must also release the learning powers of children.

PART II

THE PROCESSES OF PERSONALITY

CHAPTER XIII

METHOD OF CLASSIFICATION AND ANALYSIS

IT HAS become the fashion since the time perhaps of Locke, certainly of Herbart, to base one's theory of teaching and learning upon some set of psychological tenets. Herbart's theory of apperception and his psychological doctrines went hand in hand. Whether the psychology was developed from the theory of teaching or the theory of teaching from the psychology is not quite clear. Certainly the two were related. Teachers need a psychology which will serve them in teaching, whether it be developed from a theory of teaching or otherwise. They do not to any large extent need a psychology such as that which they have been studying in recent years. They do not need a system of psychology which is, in the words of Münsterberg, "a special abstract construction." Psychology, to be of use to the parent or the teacher, must be so expressed that it will have bearing upon the acting and learning of individuals. It must be no "abstract construction" but a psychology of everyday reality.

Teachers have, for the most part, already been trained to a psychology. But so-called educational psychology has been no servant of teaching. Rather have teaching and teachers become the servants of educational psychology, for teachers in training have been compelled to spend endless hours to secure much-vaunted "credits," a term which educational psychologists have as yet failed to define.

It is therefore necessary to relate certain of the psychological terms and ideas so glibly and familiarly set forth for teachers in customary courses in educational psychology to

the general theme and treatment given here. There are many common terms, such as *intelligence*, *memory*, *emotions* and *thinking*, which have developed such a definite connotation elsewhere that they must be related to the present discussion if we are to avoid confusion in our thinking. Once they have been related to the general thought here set forth their bearing on learning and teaching will become obvious.

This problem of relating current ideas in education and psychology to what has previously been written here is beset with many difficulties. The chief of these is that current terms and language of psychology are so firmly based upon a partitive approach to the subject that the terms commonly used are not always adapted to the present point of view. Furthermore, these common terms so frequently carry with them a connotation from their previous psychological context that their very use brings to the mind a periphra of ideas and implications false to this present discussion.

Analysis of personality may be made, not in terms of parts, but in terms of processes. It is obvious that while it would be fallacious to cut off one part of the personality from another, yet it is possible to consider specific processes of the whole personality without doing any violence to its unity or wholeness. Thus while we do violence to a plant by parting it into its roots, its stalks, its leaves, its flowers, we do not violate the plant's fundamental wholeness by studying its growth process or its process of metabolism. We may then proceed to study the function of the roots, or the leaves, or the flowers in the process of metabolism or growth. By a discreet treatment a unified understanding of the whole plant may be secured. So it is with personality. If we violate the wholeness of the individual by studying him part by part, his memory, his reason, or his intelli-

gence, we are off the track. If, on the other hand, we study his processes of reasoning or remembering, we are still maintaining a series of organic relationships which do not violate the nature of personality.

Not only has this neglect of organic relationships been common in psychological terminology but there has also been a very marked confusion between processes, agents and functions. As may be observed from the following list, aspects of the total personality have been indiscriminately named by psychologists, sometimes as processes, sometimes as agents, and at other times as functions, though seldom the latter.

PROCESS	AGENT	FUNCTION
Controlling	Intelligence	Control
Habit forming	—————	Habituation
Regulating	Emotions	Regulation
Sensing	Senses	Relating to environment
Purposing	—————	—————
Integrating	—————	Integration

In the above list there are several very familiar terms. Intelligence, for instance, is widely used. It is obviously an agent of personality. The careless use of the term as if it were sometimes process, sometimes function, has resulted in a clouding of both its corresponding process of controlling and its function of control. So this aspect of the personality has been named from the agent. Habit has been named as a process and sometimes expressed as a function. Emotions are named as an agent. Such a confused plan of naming in the realm of psychology is responsible for much disorder and obscure presentation.

In what follows it is necessary to face the dilemma of inventing new terms to clearly distinguish process,

agent and function, or to use old terms circumspectly and cautiously. The latter plan has been chosen as most suitable to the present. An attempt has been made to use old and familiar terms whenever possible, but to use one device or another to prevent the misuse or misinterpretation of the terms, to prevent the confusion of process, agent and function. Because of the difficulty of this plan the reader is asked to be patient when these difficulties are obviously impeding the exposition.

Throughout this discussion it is constantly necessary to maintain a clear understanding and distinction between (1) the animating life force which is in each case fundamental, (2) the process of personality which is the mode of action used by the entity, (3) the agent which is the name given to the aspect of personality which corresponds to the process, (4) the function which is the name of the power which corresponds to the process.

It is not necessary to regard the list of processes, agents and functions given here as if it were entirely correct or final. It is quite possible that further study of personality will modify, limit or supplement the processes as here set forth. Other processes which are as yet unrealized may be discovered. Whatever alignment or realignment may develop, the basic relationship of the animating life force, the process, the agent and the function may remain a valid basis for an active concept of psychology.

CHAPTER XIV

PROCESS I: THE PROCESS OF CONTROLLING

THE TURBULENCE of everyday living must be reduced to some sort of orderliness by the everyday man. Even upon the quietest day he is faced with a series of conflicts within and without himself which must be resolved into some kind of consistent and sequential orderliness. There are telephone calls to be made, letters to be written, books to be read, friends to be met with and entertained, work to be done, family affairs to be arranged, bills to be paid, plays to be seen, appointments to be made and kept, games to be played, meals to be eaten. How shall such a multifarious pattern be worked out and fitted together in the way which will be most satisfactory for all concerned? The complexity of this daily life is increased many fold by the intricacy of each of these minor affairs of life. The making of a simple appointment is sometimes tied up with a series of emotional affairs, intellectual purposes, or practical goals. Our tasks in the workaday world are complicated by numerous matters of policy and endless problems to be solved. Not only must we work out some sequence of events but each event must be elaborated in the light of our own complex personalities and the personalities and affairs of the numerous people we meet. To live our lives even for a day we must steer our course not once but a thousand times through some dangerous Scylla and Charybdis.

It is our human intelligence which must keep in control these complex processes of living personality. Psychology has familiarly used the word intelligence to indicate the agent of the personality possessing this power of control.

We may still use it to indicate that aspect of personality which exercises the process of controlling personality.

THE PROCESS OF CONTROLLING

In any given instance, before the self-directing power of personality may determine action, intelligence must deal with a variety of opposing patterns and bring order out of chaos. For instance, on a cold day in a winter of unemployment and hardship, one encounters a man without sufficient clothing, blue and shivering. One gives him some money or one does not. In such a case patterns throughout the whole personality are stirring. One is swayed this way and that by feelings, imaginations, and thoughts. From all these awakening patterns the intelligence must choose so that the drives associated with each pattern are harmonized into some coördinated drive. This coördinated drive now enters into relationship with the I. According as this relationship is established, the individual acts, giving or not giving, as the case may be.

Intelligence functions under the guidance of the self-directing power of personality. It acts as a governor upon the choices made by the total personality. The incessant driving of the life force is ever seeking newer expression by means of the total resources of the personality. It supplies the drive of the self-directing powers of personality, which in turn make use of controlling intelligence. But the life force also animates and drives the other aspects of the personality. Associated with every pattern within the personality is its own particular drive which, entering into the active processes of the personality, oppose the intelligence. It is the function of intelligence to control these patterns somewhat as a driver reins in many horses. Intelligence at any moment must guard the final drive which issues as the living of the total personality.

At a given moment any aspect of the personality may be active, seeking expression under controlling intelligence. Each aspect of personality may have its associated drive, and we may conceive of as many drives as we may conceive of patterns. Theoretically we may note any number of patterns. Actually we can distinguish certain typical or usual patterns such as those we recognize because of our glimpses through the various "windows" of personality. Thus we may definitely study patterns of the mechanism, emotional patterns, patterns of thought, and other unrecognized patterns which may be called x-patterns. All such patterns are ordered and controlled by the intelligence.

PATTERNS OF THE MECHANISM

There are certain patterns within the personality which seem to be definitely concerned with the human mechanism. An individual "barks his shins," as the expression goes, by knocking them on the hard wood of a table leg. A pattern which is definitely concerned with the mechanism issues a drive which is very pressing, and in spite of the controlling intelligence, often results in the almost total abandonment of the personality to that pressing drive.

The intelligence exerts a degree of control which differs with different individuals affected by such a circumstance. Yet in most cases a severe blow upon the shins results in a situation in which a pattern of the mechanism becomes most potent. There may be many such occasions. A stomachache, a headache, or certain physically pleasurable acts may involve certain patterns within the mechanism that are very belligerent and require the strong activity of the intelligence to keep them in control, and to relate them to the total patterns within the personality in a way which will be of maximum value to the total personality.

EMOTIONAL PATTERNS

Similarly emotional patterns may become particularly potent. The individual who listens to a strongly emotionalized address followed by an appeal for money sometimes is betrayed into a prodigality of generosity which causes him to give much more than he had intended. An individual "in love" may lavish time, gifts, and attention upon the individual he loves even to the neglect of his regular work and duty. Frequently patterns which are emotional exhibit such striving that the intelligence must battle to keep them in control.

PATTERNS OF THOUGHT

The thoughtful individual is one in whom patterns of thought play a prominent part in influencing behavior. For example, a certain individual who held an executive post of great importance involving the direction of many human beings was notorious for his slow but wise decisions. When others were in a flurry this man was calm. When they besieged him for decisions he held them off and told them to wait. In the meanwhile he was consumed with his thoughts, regarding the matter first from this angle and then from that. He was not largely swayed by emotions, was calm in times of danger, and unexcited in times of stress. The patterns of thought were very active. His intelligence had many patterns of thought with which to contend and few emotional patterns. Controlling these patterns of thought the individual's intelligence brought them into final relationship with other patterns so that the final set, largely influenced by patterns of thought, issued in a decision which had definite effect upon the lives of many individuals. Patterns of thought may be brought under the control of the governing intelligence.

X PATTERNS

It is particularly difficult to deal with conceptions concerning the x factors of personality. That they are recognized only in the abstract makes such problems hard to discuss. Sometimes individuals indicate by their conduct the presence of what seem to us unexplained patterns. Their conduct does not seem to be accounted for in terms of type patterns or drives with which we are familiar. In such cases we may suspect that the final action of the individual is influenced by drives issuing from the x patterns. It is clear that the series of patterns which must be related and controlled by the intelligence is large and varied.

How rich then are the opportunities of education! Teaching becomes no longer the process of our fitting the rank and file with some precocious abracadabra. We cannot hope to furnish some dose of facts or to make a local application of information as a physician might swab his patient with some potent lotion. There is no predetermined pabulum, textbook or curriculum suitable to nourish the minds of children or adults, as food nourishes their bodies. Nothing less than a series of experiences which enlist the total personality of the individual in its full onrush of living can be mistaken for actual education. We must develop the furthestmost and inner reaches of the personality, concerning ourselves not merely with thoughts but with emotions, with arms and fingers, with dreams and ambitions. We must occupy ourselves with those infinite plots and patterns which blend in the making of personality into a thing of beauty and a joy forever.

HIGH AND LOW INTELLIGENCE

It is now possible to throw some practical light on that vexed question of the meaning of high or of low intelligence. The prominence of discussions of intelligence in recent presentations of educational psychology makes this a topic of special interest. In 1890 Cattell, in first describing certain psychological examinations of individual differences which he had devised, called them "mental tests." Three years later Joseph Jastrow sat in a small booth along the Midway of Chicago's World Fair and offered to measure free of charge the minds of those who would make the experiment. These mental tests were the forerunners but not the forbears of our so-called intelligence tests. These tests are lineally descended from those which the Frenchmen Binet and Simon set out to devise in 1905 in order to estimate what they called "general intelligence." In 1910 Dr. H. H. Goddard had classified the four hundred inmates of the Training School for Feeble-Minded Children at Vineland, N. J., according to the Binet-Simon Tests. In 1916 Terman produced the Stanford Revision of the Binet-Simon Tests, which has been called "the mental yardstick of the ages." Terman provided instruction for computing by the use of this examination a child's "Intelligence Quotient." Thus it was arranged to discover, by relating a child's score on the test to what was considered the normal I. Q. of 100, the index number which would indicate the child's "Intelligence." So was the meaning of the word intelligence confused almost beyond rescue. In naming what was called the I. Q., Terman was naming what was in reality an estimate of the inherited aspects of the child's brightness, but not in reality the child's intelligence.

Thus have American teachers and parents been thrust into an era of confusion which has pushed the controlling

intelligence of the individual out of sight, and blocked the psychological horizon with a deterministic conception of the child's inherited brightness. Teachers have been led to believe that children in their care, because of a low score on such a scale, were practically beyond the powers of education and the uses of life.

Further, and more serious still, there has been a lack of emphasis upon trained intelligence which enables the individual to rise above himself and make ever and ever wiser choices in dominating life about him. A few years ago the mother of a small boy, whose psychological coördination was poor, was told by the psychologist of a famous progressive school that the child would become a helpless and useless individual. The indignant mother removed the lad from the school and today he is a normal child whose I. Q. registers well above a hundred, and whose intelligence, when compared with children of his age, is superior to his I. Q. We must rely upon the resident powers of children to overcome their weaknesses and develop active wisdom. We must restore to education a wholesome notion of intelligence. Teachers and parents need to know that the child's power of making wise choices may be almost infinitely developed by good teaching. We must not confuse a child's intelligence with the inherited aspects of his brightness. We must develop a clearer notion of high and low intelligence. The individual who chooses the grouping of his own patterns which will issue in the most satisfactory action for himself and society is the most intelligent.

We now find ourselves in a position to consider the difference between the individual of the high and the low intelligence. The light which has been thrown upon human functioning by physiological psychology goes to confirm the conclusions which have just been drawn concern-

ing intelligence. It has been widely recognized that there is a fixed factor as well as a variable factor in human intelligence. Spearman has recognized these factors as a *g* (general) factor and *s* (specific) factor. It has been suggested⁵⁶ that since there is evidence that the number of neurones present in the cortex is constant after birth for each individual but is larger for some individuals than others, the *g* or fixed factor is so determined. Furthermore, since changes in growth and complexity of the neurones which imply changes in the synapses have been observed microscopically, the *s* factor may correspond to the growth processes in the neurones after birth.

In each case the relationship to intelligence as a functioning factor of personality is clear. When the number of neurones at birth is small the possible number of functioning patterns within the individual is reduced. When the growth of the neurones due to paucity of environmental relationships is limited then the number of patterns is still more reduced. The resources which the governing intelligence can command in exercising its controlling functions are, in the case of poor inheritance and poor education, much limited. We therefore find the individual less able to deal with complex tasks. On the contrary, when inheritance and education are good the individual has a much larger range of possible relationships within the personality, and so can deal with more complex tasks, that is to say, with more complex patterns in the environment. The intelligence is thus limited first of all by its own fundamental nature, which may be good or poor. We may say a man is wise when he makes good choices and stupid when he makes poor ones. This fundamental nature of intelligence is compounded in various directions by its relationships with the various degrees of complexity of patterns within the individual due to inheritance and training. Thus the

intelligence of the individual is revealed by the nature of his choices and further by the possible range of choices within his total personality.

LOW INTELLIGENCE IS AT A DISCOUNT

Why is it that dull children are more difficult to develop into ways of wisdom than bright ones? The fundamental aspect of intelligence, the power of choice, is so compounded with its further aspect of complex patterns that in the dull individual the power of choice is at a discount, while in the bright individual the power of choice is at a premium. Thus we find poor choice associated with dull individuals and good choice with bright ones. Or, to put the same thing in different terms, although the power of choice and the complexity of the patterns may not be directly related to one another, yet there is a positive correlation between them so that the person of poor choices tends, other things being equal, to be dull, and the person of good choices tends, other things being equal, to be bright. The dull person is likely to be poorer not merely in complex tasks for which he lacks the complex and numerous patterns necessary, but also in simple tasks which are within his grasp. For example, the dull person is not merely deficient in patterns to enable him to deal with such a problem as Aristotle's classification of the branches of learning and culture. He is also a poorer individual to boil an egg than a bright person. While the dull person has patterns which enable him to realize that the water must be boiling, and the egg must be cooked, say four minutes, yet he will frequently cook an egg so that it will be hard or soft and serve it to a person who prefers his egg medium. The bright person will much less often err in this fashion. For, in addition to the few patterns which the dull person has to exercise choice among, the

bright individual has many others. He has concepts concerning uniform temperature. Thus when the egg protrudes a half inch from the top of the water he is not satisfied. He has the concept of exactness in time relationships. Whereas the dull cook guesses the three and a half minutes, saying to himself, "It will be near enough," the bright cook who understands chemistry and physics says, "I will use the second hand on my watch in order that the time may be exact and the product uniform." If the egg is very fresh the good cook will leave it in a few seconds longer, while if it is very small he will leave it in a few seconds less. So, to the bright individual the boiling of an egg is a comparatively complex task in which his power of choice which is initially good may be able to operate more often and so produce a more finely integumented result. The dull person, sticking to his few patterns, will have his poor choice still more hampered by his lack of patterns. It is as though an artist of ability should in painting a picture have the full range of every desired pigment, whereas the amateur is limited to red and green. Thus the pictures will be poor in a double sense.

Again, the individual of poor choice is limited by his poor choice in such a way that he develops fewer patterns than a brighter individual. He chooses the simpler paths of life, such as those of the laborer and the dish-washer, rather than those of the scholar. In this way by the poor functioning of choice he limits his experiences and so his patterns. Poor intelligence seems to be "ingrowing" and the limiting results of it cumulative. On the contrary, high intelligence is also cumulative. So while we must be ever on the alert lest the bright child make errors due to the very complexity of his patterns, we must be ever patient in building the intelligence of the dull child who needs our ministrations so desperately.

BRIGHTNESS AND DULLNESS

We are now in a position to distinguish between two concepts which have been somewhat blurred in the recent discussions of psychology. These concepts are those of the intelligence of the individual and his brightness. Too frequently these different aspects of personality have been confused. The brightness or dullness of the individual clearly depends upon the number and complexity of his patterns, not upon the intelligence with which he controls those patterns. The greater the number of patterns within his personality the greater the number of patterns he will discover in the environment and the more active and efficient he will be. We call such an individual bright, whereas the person of few patterns we call dull. Due to the complexity of his personality and its more complex relationships with the environment the bright individual has better insight into the situation in which he finds himself.

A bright individual is one who has well developed insight. Because of this insight we call him bright. But this insight is not intelligence. He may still see into the problem and make bad choices. An individual may see so deeply into the mechanism of locks that he understands them perfectly. He is a bright individual. He breaks into a house and is caught and imprisoned. He was not an intelligent individual. His insight into locks was good but his choice was bad. He was a bright individual but not so intelligent as he might have been for his degree of brightness.

It is obvious that while intelligence is a concept that includes brightness, brightness is not a concept that includes intelligence. A bright person may not be as intelligent as a dull one, because his brightness is associated with a poor power of choice. On the other hand, given two individuals whose powers of choice are equally good, the

brighter of the two will be more intelligent than the duller. In other words, intelligence is compounded of two factors: one is the basic power of choice, or the power of governing the patterns within the personality; the other is the degree of brightness within the individual, which corresponds to the number and complexity of his patterns.

It is essential for those concerned with teaching either children or adults to understand the importance of rich and complex patterns in the development of the brightness of the individual. So the school which limits children to second-hand experiences through words which they little understand is virtually causing their dullness. This understanding of the dependence of the learner upon experience illuminates the trenchant words of Rousseau which teachers read with emotion but heed so lightly.

"I do not like explanatory lectures; young people pay very little attention to them, and seldom remember them. Things! things! I cannot repeat often enough that we attach too much importance to words. Our babbling education produces nothing but babblers.

"Suppose that while we are studying the course of the sun, and the manner of finding where the east is, Emile all at once interrupts me, to ask, 'What is the use of all this?' What an opportunity for a fine discourse! How many things I could tell him of in answering this question, especially if anyone were by to listen! I could mention the advantages of travel and of commerce; the peculiar products of each climate; the manners of different nations; the use of the calendar; the calculations of seasons in agriculture; the art of navigation, and the manner of traveling by sea, following the true course without knowing where we are. I might take up politics, natural history, astronomy, even ethics and international law, by way of giving my pupil an exalted idea of these sciences, and a strong desire to learn

them. When I have done, the boy will not have understood a single idea out of all my pedantic display. He would like to ask again, 'What is the use of finding out where the east is?' but dares not, lest I might be angry. He finds it more to his interest to pretend to understand what he has been compelled to hear. This is not at all an uncommon case in superior education, so-called." ⁸²

We may well ask if our public schools have not dulled and stupefied children by incarcerating them for relentless days and hours in barren classrooms. It is experience which learners need. We must let down the barriers of school walls. Take children out into the world, into museums and factories, to fields and farms, outdoors to nature and to the living world of men and things. Let us take grown-ups into the reality of actual adventure with materials and men. Let us have pupils travel and explore until the patterns which crowd within them are so numerous and vivid that the minds of the general populace become not poor and trivial but rich and free, until our boys and girls are not segregated to dullness but liberated to an enlightened brightness. Rich experience brings richness of patterns; richness of patterns means increasing brightness; an increasing brightness may be a clear servant of intelligence.

Again the implication for the training of children is clear. We must not merely train children by giving them rich experiences but we must train them to select some experiences, and reject others. It may thus be better for a child to see a somewhat undesirable moving picture under guidance which will help him to select the good and reject the evil than to deny him such an experience altogether. "There is nothing from without a man, that entering into him can defile him: but the things which come out of him, those are they that defile the man." A child is not made intelligent by denying him experience of the world. His

intelligence is built by widening his experience and guiding him in the making of good choices and by training him to order the patterns of his personality and his environment carefully and in the wisest fashion.

THE MEASUREMENT OF INTELLIGENCE

This distinction between intelligence and brightness goes far to explain the results of so-called "intelligence tests" which have been extremely puzzling, if not to psychologists, certainly to teachers and laymen. The tests have been concerned with the brightness of the individual rather than with his intelligence, or his powers of controlling his inner patterns. But such tests have not even measured the brightness of the individual. They have merely estimated the inherited aspects of his brightness, and only of those below adulthood. Since children's experience is very limited the choices which they make must be made out of a small series of patterns. If the patterns of child personality needed for the test are simple the choices he is required to make are comparatively simple. Their simplicity makes them comparatively valueless as an indication of brightness. In the case of vocabulary tests, for instance, the number of words which the child can recognize and use on the Binet-Simon scale does not depend largely on the excellence of his powers of choice but upon the number of his patterns. Again, the repeating of a five-figured number does not test the child's powers of choice but rather the complexity of his patterns. Thus it is clear that what the intelligence tests measure is probably some aspect of the brightness or dullness of the individual.

The brightness of the individual is doubtless a complex of inherited and acquired behavior. The patterns of the personality are certainly a complex of inherited and acquired patterns. If we pause to consider the typical experi-

ence of a child from birth to the age of ten in America it will be obvious that his environmental experience will be very much the same as that of other children in standardized America. Furthermore, if tests are to be adapted to children all over the United States the elements of the test must be chosen from environmental experiences which will be common to those to be tested. We thus have a series of test elements which are, in terms of the environment, much the same for all children taking the tests. When they take the tests, therefore, the environmental elements in the case of one child cancel out to a large extent with the environmental influences upon every other child. The result is that what is measured is to a very large extent the result of the inherited aspects of the patterns involved. We therefore find that in intelligence testing we seem to get at a factor in the child's personality which is largely equivalent to the inherited aspects of his brightness—what might be called his natural or inherited brightness. This may help to explain why it is that intelligence tests seem to have measured the inherited brightness of children. But it is obvious that intelligence tests, if these things be so, do not measure intelligence nor do they measure brightness but merely the inherited aspects of brightness.

Thus we are prepared for a phenomenon which has been considered remarkable, that the "intelligence" of the individual as measured by tests ceases to grow at about sixteen years old. It is really the inherited aspects of brightness which cease to grow. The body is now reaching its full size and the tissues their full growth. The inherited aspects of brightness would now naturally become fully developed. The inherited aspects of patterns would now at last have reached full delineation. Consequently we would expect no further increase in brightness due to this factor. On the other hand, the uninherited aspects of brightness may con-

tinue to be compounded with the power of choice and the environmental patterns which the individual encounters and so the net increase in intelligence be vast.

One further phenomenon which has given trouble may be clarified in the light of these explanations. The failure of intelligence tests to measure adult intelligence is notorious. Tests which measure the inherited aspects of brightness would fail to measure adult intelligence. For after the maturing of these inherited patterns experience of different individuals becomes increasingly diverse. There is no binding of the individual's powers together by the increasing growth of inherited aspects of patterns. The existing patterns compounded with an ever-widely varying experience. The powers of choice begin to see new vistas of complexity never before conceived of in the simple life of childhood with its uniform public school curriculum and environment. So the problem of intelligence testing is complicated beyond any possibility of securing satisfactory results from the type of material used for children. For the inherited aspects of brightness which were measured in children have now become so inextricably intermingled with other aspects of personality as to be beyond estimate in terms of intelligence tests.

Surely, then, we are now freed from the domination of the so-called intelligence test. It does not measure intelligence, it does not measure brightness. It does not measure adults. It can merely give us some indication of the inherited brightness of some children. The most that we can gather from it to help us in dealing with individuals is some notion of a certain inherited limitation or advantage under which some specific child is placed. Thus we may be given some guidance in means and methods of improving the child's intelligence. Whether or not it is worth while to go through so much to learn so little yet remains to be

fully decided. Certainly it would be better to banish intelligence tests from schools forever than to treat the results as if they were measures of a child's intelligence. Let us be intelligent about intelligence tests.

CHAPTER XV

PROCESS II. THE PROCESS OF KNOWING

THERE IS probably not one of us who has not wondered at the process of growing and learning. Sometimes we have been humanly entranced by the charm of a cunning infant. At other times we have coldly and scientifically considered a child's utter lack of experience, and regarded babies as feeble masses of protoplasm. We have marveled to watch the change that comes with growing up. This same winning creature or reacting mechanism or whatever we may wish to regard it takes on new life with succeeding days. We have beheld that fascinating panorama of the child realizing his own existence, day by day becoming more alert and more like ourselves, that miracle of growth into manhood.

How did it all happen? By what esoteric or endemic process did it occur? What is this mysterious and overcoming way by which the baby, through the long days, becomes the man? How does the infant draw near to this world of ours, and how does this world of ours affect him? We have all incessantly pondered this process of being and knowing.

The initial problem in the untangling of this puzzle is to understand how the new-born infant first relates himself to the environment into which he has been born. Locke was an early exponent of the idea that the infant's "mind" came into the world a blank, like a piece of white paper. A behaviorist, it would seem, should be convinced of this blankness of experience. It is characteristic of those who believe that all experience comes from environment. McDougall, on the other hand, is a doughty defender of instincts, and would lead us to believe that instincts

dominate much of human behavior. But today almost any sophisticated student of the counterclaims of the environment-inheritance controversy is convinced that both inheritance and environment play a definite part in affecting human conduct. The degree of influence and its nature may be little known, but that each is potent in an individual's conduct seems reasonably certain. In fact it is only such an hypothesis which makes it possible to adequately explain human acting and learning. For it is obvious that without inherited patterns no initial acts could be begun. The first step in the direction of experience can be made only by an inheriting individual. On the other hand, only an environmentally influenced individual could find his way in this cluttered world.

Clearly the child's initial approaches to experience can only be in virtue of his animating life force. The child has the "instinct" to live. In the very beginning the child must respond in virtue of inherited patterns and drives. Inherited patterns begin to alter immediately at birth by interaction with the environment. It is impossible for those inherited patterns to become altered soon enough by the environment to cause conduct which is other than largely instinctive. Consequently patterns such as walking or talking, which are largely composed of learned elements, may not begin to function until the time has passed to allow them to form. The nearer we get to birth, the nearer we get to conduct which is purely instinctive. The moment the child is born he initially draws near to the environment in virtue of his inherited patterns.

SENSING

But how may these patterns be altered by the drawing near of the life force to the environment? The earliest drawing near of the personality to the environment may be

termed the process of sensing. This process has been elaborately and fully studied and described by the physiological psychologists and should be studied in their works. The baby senses the light, and he senses the sound going on about him. He senses the food which he eats, and he senses heat and cold and various touches and pressures. It must be remembered, however, that there is no sorting out, by him, of the sounds, the sights, the pressures, except in terms of inherited patterns. In all probability, neither sights nor sounds nor many other elements of the environment are at all sorted out by the sensing individual just born. This is probably what was meant by James when he described the baby's universe as a "big, booming, buzzing confusion." To the baby itself, however, it is neither big, booming, nor buzzing. Neither is it a "confusion" nor a "universe." For the infant is without any of the concepts required by the individual if he is to conceive of the meanings of these words. The world is just sensations which are neither recognized nor named. Sensations are the basic elements of experience which are the result of the life force sensing via the mechanism. It has too often been assumed that the environment is active in the process of sensation. The environment is completely dead in such a process. It is the life force which is active sensing via the specialized organs of the mechanism.

The life force uses the mechanism of the child with its specialized end organs of the eye, the ear and the skin, in this process of sensing. The mechanism is essential to the process of building personality. Much as we may at times wish ourselves free from the impediment of the mechanism, nevertheless we are infinitely indebted to it. It is only in virtue of fundamental sensations that we can perceive the environment and so develop perceptions which become the basis of conscious experience. We could never know, per-

ceive or realize ourselves in terms of our very limited inherited patterns. The processes of conception, self-consciousness and recognition are all the result of interaction with the environment. We know ourselves in terms of the environment.

PERCEIVING

By means of the processes of seeing, hearing, smelling, tasting and touching the infant draws near to the environment. But the general structural relationships within the environment tend to remain the same. The child's mother is much the same from time to time, the clothing, the appearance of the objects in the room, the shape of the breast and so on remain very much the same. While the sensing processes of the child remain active the relationships with the environment remain comparatively passive. Thus a series of sensations tends to be received by the child in an arrangement relatively permanent. What the child senses comes to it in patterns which his inherited drives choose from the environment. A group of sensations associated with one another in the child's experience on the basis of some pattern in the environment is a percept. Thus sensations which form a pattern in the child's personality form a percept. A percept is a pattern of sensations. These percepts become associated with inherited patterns so that personality becomes more complex and becomes related to environment in more intricate fashion. Concepts are soon associated with concepts and patterns become increasingly integrated. Thus the child's personality grows day by day more responsive to the patterns of environment.

PATTERNS IN THE ENVIRONMENT

Frequent use has hitherto been made of the term "patterns in the environment." What is a pattern in the environment? The environment is all that is outside the per-

sonality. It is virtually continuous. It contains patterns of trees, rocks, hills, and skies which melt and run into one another so that all within range of the sensing powers of the individual is unanalyzed. The individual does not, however, react to this environment evenly in its totality. He reacts merely to parts of it. He picks the daisies, not the grass stalks indiscriminately. He watches the ship sail in the harbor but he does not watch the clouds sailing in the sky. We say he attends to part of his environment at one time and not to other parts. Attention is that process by which the personality draws near to one part of the environment to the exclusion of others.

How is it that the personality has this power of selecting certain parts of the total or continuous environment for special attention at special times? It is on the basis of perceptual patterns. Once a percept has been formed in the personality by the processes of association the personality has isolated a pattern in the environment. For example, once the infant has developed patterns which form the percept of its bottle, the bottle has, in terms of that infant's personality, become a pattern in the environment. The infant has learned to react to that element of the environment as separate from the total environment of which the element forms a part. Thus when by the process of association a pattern in the personality has become related to an element of the environment that element of the environment may be called a pattern in the environment. People develop in themselves certain correspondences between themselves and the environment in which they live. We may say that their environment has become a part of them.

NAMING AND KNOWING

It may be long after the infant has formed within himself patterns which conform to patterns in the environ-

ment that he may be said to know those elements. Before that time, however, he recognizes or perceives patterns in the environment. When he grasps his bottle he may be said to recognize it. When he smiles at his mother or father he may be said, in this limited sense of responding, to recognize them. But knowing means more than recognizing. There is a social element in the process of knowing. To know is not merely to recognize but to recognize in common with others, and in the same way in which others may recognize. The child does not know his mother or his father until he is able to name them. Knowledge depends upon the process of naming.

By the process of naming, concepts become known. Any pattern of the environment which is named may be known by the individual. The bottle cannot be dealt with in its absence from the environment until it is named. Once it is named the pattern within the personality of the child which corresponds to the pattern of the bottle in the environment may now be used as a substitute for the actual bottle in the knowing process of the individual. The child may from now on use this concept in his thinking. Thus knowledge consists of named patterns known as concepts. When the processes of personality become more complex, not merely concrete objects but abstract relationships are named. But, whatever the nature of the concepts, knowing depends upon recognizing and naming. Knowledge is the ability to recognize and name concepts and their relationships to one another.

The process of knowing is one which depends upon a certain degree of maturity. Its subsidiary processes of sensing, conceiving and naming occur in sequence in the life of the individual. Not until the individual has passed through all these processes can he be said in the fullest sense to know. Fuller knowledge is constantly reached by

the continued functioning of the process of knowing. By the process of sensing the personality comes into initial relationship to the environment. By the process of conceiving it organizes personality patterns in relation to patterns of the environment. By naming, the process of relation to the outside world is complete and the individual may be said to know. For to know is to come into control of the environment.

Education, then, faces a double task in the development of knowledge. We must first teach children to know their environment, the world in which they live. Then we must teach them to discover new knowledge for themselves. In the initial problem, that of teaching children to know, we cannot be too clear upon the fact that the order of arriving at knowledge is not naming, conceiving, sensing and knowing, but sensing, conceiving, naming and knowing.

One of the earliest problems of the education of children is to provide them with a rich sensory experience, rather than with a series of meaningless names. Whatever children see, hear, smell, eat and touch is a first step toward knowing. So we may clearly understand the inadequacy of book learning for young children. Sensing in the fields and hills is the best introduction to the words of everyday experience. As experiences multiply and are named knowledge increases. Symbols take the place of realities in experience, and the child can communicate adequately by spoken and written words.

The secondary problem is that of developing individuals who can discover new concepts and name them for themselves and others. One of the age-long problems of the human race has been to discover and name certain concepts hard to discover. This has been a work for both philosopher and scientist. The development of modern science was delayed over a thousand years by the loss of the

"induction" of Aristotle. The name being lost the concept remained hidden. When it was rediscovered and named by Bacon there was as vast a release of human energy as our machines have given us in physical energy. In order to control the machines about us today we need correspondingly vast releases of human energy. Thus we must train our youth to discovery and research. Research is a process of discovering and naming. There is still a vast realm of concepts which we humans cannot deal with because those concepts have not been isolated and named. Education should lead us to such new discoveries.

The ancient problem of knowledge poses three tasks for education. The first and the earlier is that of providing children with wide sensory experiences and the names for them. This is a major problem of the elementary school. The secondary school may concern itself with the wider problem of using these names of things to widen human experience by means of words into those vast realms which are beyond direct sensory experience. There are wide fields of science, literature and history in which words carry us far beyond local experience. In college these prepared young people should be ready for action and research in a world which is filled with problems. These three approaches to knowledge overlap on these various levels, yet here is a general pattern for the approach to knowledge through education.

KNOWN CONCEPTS A BASIS OF COMMUNICATION BETWEEN INDIVIDUALS

Concepts are not named by the individual in independence of other individuals. For communication between individuals depends upon the uniform naming and knowing of patterns in the environment. Names provide us with a least common denominator of experience by which we

may communicate by means of knowledge rather than experience. In buying potatoes I do not have to point to potatoes in order to secure them from the grocer. I may substitute the name which the grocer and I use in common to correspond to the real potato. For the concept of a potato is a pattern in the personality of the grocer; it is also a pattern in my personality, and each of the patterns corresponds to the environmental pattern of the potato. This triangular correspondence enables the grocer and me to substitute our pattern or concept for the reality. Thus aspects of the environment which are common to all may become common knowledge.

Communication is possible due to the fact that we all live in a common environment. We are all associated with trees and rocks and houses and hills. Thus we may communicate on the basis of the natural environment. But we go further than this. Human beings so control the environment that not merely the natural patterns may be named, but also certain artificial or controlled patterns may be developed. By agreeing upon certain arbitrary concepts as parts of the environment of all individuals we may further facilitate human communications. It is by controlled associations with arithmetic and reading that the individual learns to make use of names and concepts which have been agreed upon by others. Thus the common school "subjects" should be taught not for their mechanical or subject matter values but for their social significance and use.

INSTINCT AND INSTINCTIVE CONDUCT

We have by now wandered far away from the simple sensations of babyhood. The conduct of the grown man is very far removed from that of the new born infant. By association with the environment the instinctive drives of

the infant have become mightily modified. May we then identify the instincts of the adult? Obviously not. Pure instinctive conduct is practically non-existent. The instinct to live as it appears at birth is probably the only pure instinct which can be isolated. Immediately after birth instinctive conduct begins to be modified. Consequently, in the life of the individual there is no such thing as conduct which is purely instinctive. Thus the various attempts of psychologists to name and classify instinctive acts are most misguided. Instinct is a term which is purely academic. It describes a concept which has no counterpart in actual conduct. Pure unmodified instinct never issues in human conduct.

In dealing with learning individuals we never encounter instinctive conduct but conduct which is based upon instinct. We may best recognize such conduct by a process of cancelling out those factors of human conduct which vary in different individuals and groups. By discovering conduct which is universal we may discover conduct which is likely to have a large instinctive basis. For example, when a child walks to its mother smiling and gurgling and throws its arms about its mother's knees, what the child does has a strong instinctive basis. Part of the total response is, however, learned. Thus in attempting to name the instincts we do violence to human conduct as it actually appears.

Teachers may, however, find much that is useful to them in the understanding of children and of the activities they are likely to initiate. There are certain general modes of reaction which, although they do not appear as pure instinctive conduct, are so universal that they are probably highly influenced by inherited patterns. Such for example are those tendencies of children which may be described as follows:

Activity	Imitation
Love of Nature	Love of approval
Curiosity	Altruism
Wonder	Desire to own
Creativeness	Enjoyment of competition
Tendency to form groups	Self-advancement
Sympathy	Love of prominence.

There is nothing psychologically deep about this list. A class of teachers used to observing and working with children might alter, revise or improve such a list by their own knowledge of children. Such a list is not valuable because it indicates conduct which is "instinctive." The academic discussion as to whether conduct is inherited or acquired is of little moment to the teacher. What he is concerned with is that the list indicates conduct which is practically universal. Thus teachers may depend on these modes of behavior. They may recognize them, when they are offered by children, as beginning points for teaching and plan to use them in the teaching process.

ENVIRONMENT THE QUARRY OF PERSONALITY

Human conduct is largely a result of the individual's selections from the environment. Approaching the world in which he lives, a person, in virtue of his active life force, draws near to the environment. Knowing what he chooses, he builds his own personality in conformity to what he selects. It is as though the world about us were a quarry of many kinds of stone. As we delve and work there we find the commonest slag or the most precious stones, and what we know we become.

CHAPTER XVI

PROCESS III: THE PROCESS OF HABIT FORMING

ARE HUMAN beings locked in a vise of habit? Many and varied are the tales told to maintain that they are. " 'Habit is second nature! Habit is ten times nature,' " ³⁶ quotes James approvingly from the Duke of Wellington, and proceeds to tell of the veteran who was carrying home his dinner and at the command "Attention!" brought down his hands and dropped his mutton chops. "Habit," James continues, "is the enormous flywheel of society, its most precious conservative agent. It alone is what keeps us all within the bounds of ordinance, and saves the children of fortune from the envious uprisings of the poor. It alone prevents the hardest and most repulsive walks of life from being deserted by those who tread therein. It keeps the fisherman and the deck-hand at sea through the winter; it holds the miner in his darkness, and nails the countryman to his log-cabin and his lonely farm through all the months of the snow; it protects us from invasion by the natives of the desert and the frozen zone. It dooms us all to fight out the battle of life upon the lines of our nature or our early choice, and to make the best of a pursuit that disagrees, because there is no other for which we are fitted, and it is too late to begin again. It keeps different social strata from mixing. Already at the age of twenty-five you see the professional manner settling down on the young commercial traveler, on the young doctor, on the young minister, on the young counsellor-at-law. You see the little lines of cleavage running through the character, the tricks of thought, the prejudices, the ways of the 'shop', in a

word, from which the man can by-and-by no more escape than his coat-sleeve can suddenly fall into a new set of folds. On the whole, it is best he should not escape. It is well for the world that in most of us, by the age of thirty, the character has set like plaster, and will never soften again."

This is a sorry doctrine for the changing world in which we live today. If we are bound in a knotty web of habits there is little hope for any of us. Ours is a society in which men are constantly being thrown out of work, in which one man's job of today is changed on the morrow. In which it is essential for the man out of work to be quickly and efficiently retrained for a different occupation. Certainly, an habituated and plaster-cast individual would be in a sad plight in this kaleidoscopic world. Today a man's very livelihood depends upon his ability to rise above his habits and form new ones.

What is this psychological process of habit forming which has led our psychologists to regard life as a continuous solidification? Let us trace its genesis in the life of the individual. It has already been pointed out that the individual is born with certain patterns which instinctively issue in drives. The so-called sucking reflex of infants indicates the potency of certain inherited patterns. The life force determined by instinctive patterns issues in a drive in virtue of which the infant sucks. But no sooner does the infant begin to suck than the patterns become complicated. Occurring in conjunction with eating, they become associated with the warmth of the food, the softness of the mother's breast, the feeling of pressure upon the body, certain effects of light and sound. The result is that the patterns which were initially instinctive now become complicated by patterns in the child's personality which are a result of his contact with the environment. Thus may the patterns become a complicated texture of inherited and

acquired aspects which operate in the personality in the most complex fashion. —

In the personality of a child of ten there are numerous patterns already established. These patterns are each associated with a drive. Once the pattern has operated as a whole the points of the pattern having established relationships within the personality become, to a certain degree, permanent. The drive associated with them becomes to a certain extent permanent, so the pattern within the personality tends to issue in a drive.

This binding together of the points within a pattern, when once those points have come into relationship with one another, may be called the process of association. Such a process securing its drive from the life force might be given separate consideration in a longer treatise than the present one. It is illustrated by what happens when a number of people hold a meeting. Some circumstance of their daily life, such as an interest in choral singing, becomes part of the environment of each at a certain time. Responding to it together they meet. Acting together in the matter they become associated with one another and we say a choral society has been formed. The association of these individuals has brought them into relationships with a common intention and so with one another. From then on, although the individuals function without relationship to one another for days, whenever the common factor in their environment occurs simultaneously for all they meet and sing together.

Similarly the elements within a pattern, having once occurred together, become associated the one with the other via the all-pervading life force which maintains all relationships within the personality. Such patterns, if allowed to become systematized by the I, may become habits. The ability to spell the word *receive* is a specific habit.

So also is the ability to change gears in an automobile. In each case a correspondence has been established between a pattern of personality and a pattern of environment. A habit may be *incipient*, that is to say, one which is concerned with a newly formed pattern of personality. On the other hand, an incipient habit may develop into a *persistent* habit. Thus the word is but a relative one, for habits may wax and wane or be abrogated in accordance with certain conditions within the personality.

THE LAW OF EXERCISE

The so-called laws of learning are not laws of learning but laws of habit formation. The law of exercise includes the law of use and the law of disuse. It is operative in many of the familiar passes of life. If one plays a piece on the piano many times, other things being equal, the piece is firmly built into one's habit structure. Repetition is a well-recognized aspect of habit forming, whether it be a matter of frowning, drinking coffee or tea, talking too much, or learning to play golf. Once the elements of a pattern have become associated with one another their corresponding drive tends to get into action when the environmental pattern which corresponds to it recurs. Thus the athlete who never skates in summer is out with his skates as soon as January silvers the local ponds. A drive tends to recur when the situation with which it was previously associated occurs again. The more often a drive occurs the more likely will it occur again when the corresponding situation turns up once more. Every time an act is performed it is, other things being equal, one further step in the direction of a habit. Such is the law of use. We are reminded of the old saw: "Sow a thought, reap an act; sow an act, reap habit; sow habit, reap character; sow character, reap destiny."

The law of use simply states the negative aspects of the

same situation. If a good cook turns over the family cooking to a servant, twenty years later her hand will have lost its cunning. The less often patterns and their associated drives occur, the less likely they are to recur when the situations with which they have been associated recur in the environment. Briefly stating the law of use and disuse together we may say, other things being equal, to function strengthens a pattern and its associated drive; not to function weakens them.¹

THE LAW OF EFFECT

The law of effect may be similarly worked out. (When an individual finds that his conduct has been desirable from the point of view of his total personality then he tends to repeat that act.) The little boy whose bright smile is recognized and returned tends to smile again. The school-boy's success in reading a story he enjoys leads him into the pursuit of literature. The author whose books are published tends to keep on writing. Patterns and drives, which have been interpreted by the life force via processes of the personality as satisfying, tend to recur. Those which the life force rejects via its self-determining powers tend not to be repeated. So we may state the law of effect as follows: Patterns and their associated drives which satisfy the life force of the total personality are strengthened; those which are unsatisfactory or annoy the total personality are weakened.

THE LAW OF READINESS OR UNREADINESS

A further law of conduct is known as the law of readiness. The patterns which issue in a final pattern issuing in a drive must be resident in the personality and preparing to be active some time previous to their issuance via the

¹ It should be noted that Thorndike's recent studies on the effect of frequency have seemed partially to discredit the law of exercise.

total pattern which becomes explicit in conduct. For example, suppose that one has decided to leave early in the morning for an all-day automobile trip to the beach. One rises early and sets about preparations. One dresses in an appropriate fashion, breakfasts early, arranges the lunch, sets the automobile in order. The party has assembled and is ready to start. Suddenly the weather breaks and it begins to rain. It is most disconcerting to be compelled to cancel the outing. In such a case at the moment when the party is ready to leave many patterns within one's personality are already in a condition which might be referred to as readiness.¹ The patterns concerning driving and swimming and eating are all in a state of pre-formation, ready to send forth the appropriate drives when the situations in the environment appropriately occur.) But the rain makes it necessary to neglect these patterns and inhibit these drives. If the party had been able to go according to schedule the freeing of the life force would have been satisfactory to the personality. The inhibition of the life force which follows when the party must be cancelled obviously involves certain strains and stresses involved in the inhibition and redirection of the patterns and drives which would be unsatisfactory to the personality. (We may state the law of readiness as follows: For the life force to function is satisfying; for it not to function is annoying. When patterns are in readiness to issue in drives, for them to do so is satisfying to the personality; for them not to do so is annoying to the personality.

These laws of habit formation are of great practical value to anyone who directs the conduct of others. They are of special value to the teacher who uses them as laws of habit formation, not as laws of learning. The teacher should use them consciously and deliberately until she learns to react toward the conduct of children according

to the attitudes so set up. They apply not merely to the mastery of fingers in learning to write, to the correct adding of columns in arithmetic, and the correct way of spelling this or that, but also to the furtive glance, the stubborn act, the happy "thank you" or the exclamation of appreciation for some poem or picture. They are a safe general guide for directing the simple reactions of children into sound habit patterns. But they do not tell the whole story of learning. Habits should be formed not inflexibly and unalterably, but tentatively and changeably. Every individual should hold determinate sway over his hierarchy of habits. Habits are like animals which should serve their master. Those which snarl must be kept in leash. A strong man asserts himself in the mastery of his habits.

THE FUNCTIONING OF THE LIFE FORCE IN HABIT FORMATION

Thus by the various processes of personality does the life force contribute to the building up of the habits of personality. The life force functions in the process of conditioning the inherited patterns and drives. This it accomplishes by the process of association for which it is responsible. The process tends to bind together whatever events have occurred together to the satisfaction of the total personality. Patterns and drives are bound together in terms of inner satisfaction and in terms of patterns in the environment. The life force establishes relationships within the personality which are associated with other relationships which are in turn related to situations in the environment. So the life force produces that weakening and strengthening of the processes of personality which is called habit forming.

The way in which the various schools of psychology may each make a contribution to the discussion of one

aspect of personality is well illustrated in this discussion of habit forming. This is particularly important because the reader, observing the influence of some particular school in this discussion, may tend to think that the point of view here set forth is that of the particular school, the contribution of which he most emphatically recognizes. The contribution toward the understanding of any specific aspect of personality, however, may gain more from one of the schools than from the others. Thus while all schools of psychology may contribute to the understanding of dreams, an especially important contribution is made by Freudian psychology. A discussion of dreams related to the point of view set forth in this book might appear to be very much under the influence of the Freudian school. A discussion of habit forming, in a similar way, may seem to be strongly colored with the point of view of physiological psychology, which, more than any other, has contributed to the study of habit. The discussion here, however, is also markedly influenced by the contribution of other schools. The concept of patterns as a basis of habit forming shows the influence of Gestalt psychology, with its delineation of field and ground. The theory of the life force as the cause of the process of association is related to although not identical with the discussion of dynamic psychology. Association itself is a term which is borrowed from the explanations of the existentialists. Associationistic psychology was originally established by the British philosopher Hartley, and was taken over for America by Titchener. It was only to be expected that it would meet with the disfavor of the behaviorists, and such indeed is the case. The idea of struggle between the drives of various habits within the personality for final supremacy in action is reminiscent of the teachings of the psychoanalysts. Thus the relatively simple discussion of the process of habit

forming set forth above is not the point of view of a single school. It draws, as every discussion of the psychology of personality may draw, from the contributions of any and every school which offers light on the general problem. By the simple process of regarding personality as a fundamental entity the whole field of psychology may be similarly welded into a significant and logically integrated field of thought.

HABIT RELATED TO INTELLIGENCE

The weakening and strengthening of patterns and drives which result in the building of habits evidently results in a changing potency of certain aspects of the personality. A habit indicates a strength or potency within the total personality. Toward what aspect of the personality is this potency directed? How does it function, and what is its significance? What are its relationships to other forces resident within the individual?

To answer these questions we must relate the habits to the functioning of intelligence. Briefly, habit is directed toward the domination of the self-directing I, but functions only under the supervision of the intelligence. It must be clear by now that the realm of habit is not merely that of such motor reactions as those of swimming or operating a telegraph key. But habit may develop via any of the patterns which may be formed within the total personality. Thus there may be simple habits, such as thumb sucking, which is obviously largely a habit of the mechanism, or the habit of despising the Japanese, which is obviously largely concerned with patterns of thought; or there may be complex habits involving patterns which interpenetrate many realms of personality, such as the habit of writing poetry. This obviously involves patterns concerned with the emotions, the mechanism, the thoughts, and is related

to the total personality in modes which are deeply ramifying.

As the individual deals with the environment some final pattern will issue in conduct. It is for the intelligence to release that final pattern to the self-directing I. But the habits resident within the personality come under the direction of the intelligence by special processes. Thus habits may coöperate or contend with the intelligence for the domination of the I. For instance, the individual awaking on Monday morning says to himself, "It is seven o'clock and I must get up now as usual and go to work." He then arises on time. In such a case the individual's habituated patterns coöperate with the intelligence and the individual functions in a manner which is socially satisfactory, or socially intelligent. If, on the contrary, he is habitually slow in arising and fails to get up and is late for work, then his habituated patterns have contended with his intelligence and have dominated it. In such a case the individual is "not acting intelligently." His intelligence has failed to control him.

In spite of this possibility of habits of the personality taking hold and dominating the I contrary to the intelligence, nevertheless the intelligence is one aspect of the personality which may, in common with all the self-directing aspects of personality, go contrary to habit. To express it differently, there is no such thing as a habit of intelligence. Habits may contend with and overrule the intelligence, but they do not thus cause the intelligence to form a habit of submission which it cannot break. Intelligence, as a factor in the personality, is not habit forming.

INTELLIGENCE NOT HABIT FORMING

The fact that intelligence is not a habit-forming function may be illustrated by the following: A young woman

has contracted the habit of smoking and smokes freely for years. At last she falls in love with a young man who is determinedly opposed to her smoking. With some difficulty she breaks the habit and stops smoking entirely. Such cases have often occurred and are an evidence of the overruling power of intelligence. In this case the patterns and drives associated with smoking had become definitely habitual. If the intelligence had not disapproved it had at least come to a state of equilibrium in its relationship to the matter which might be definitely regarded as a habit, if the intelligence were a habit-forming function. But the situation now changes. The intelligence, as it were, reverses its dictates, and the personality obeys. It is obvious, therefore, that the intelligence is not habit forming. Thus it is possible for us to reverse and dominate our habits. The man who was habituated to driving a Ford of the old style must substitute new habits of controlling the gears if he buys a new car. If he fails to do so he is liable to collision or serious accident. Intelligence enables him to control and to counter his previous habits. So patterns which tend to act habitually may yet be controlled by the intelligence. If it were not so our lives would be like that of the moth destroying itself in the flame by virtue of its own habitual responses.

INTELLIGENCE CONTROLLING HABITS OF THE EMOTIONS

The question arises as to whether or not there is any direct relationship between the intelligence and the emotions which makes emotional control possible. The question is difficult to answer. Psychology has not thrown so much light upon the problems of the emotions as it has on other fields of psychological study. In the meanwhile, therefore, it seems necessary to allow the question to remain in abeyance.

INTELLIGENCE CONTROLLING THE MECHANISM

Again the question arises as to the possibility of some direct means of control by which the intelligence is capable of relating itself to the mechanism. Intelligence seems to control the mechanism directly at times without the intervention of reason. When the mechanism is well-controlled by the intelligence we call the individual temperate. Thus we might name the process used by the intelligence in controlling the mechanism as the process of tempering the mechanism.

INTELLIGENCE CONTROLLING THINKING VIA REASON

It seems clear that the ever-changing patterns of thought, the thought stream, may be brought under the direction of the intelligence via the reason. The reason is the function of the intelligence which is used in controlling thought. When the thought processes are not under control the patterns of thought are constantly changing due to suffusion by the life force. But thoughts are not held in rein by any restraining force within the personality which limits their roving. Thus as the individual sits idly thinking of this, that and the other thing, or in conversation with a friend, he comments on one thing or another with freedom. The patterns of thought, due to the life stream suffusing the personality, are continually functioning, meeting with no resistances and responding to patterns in the environment according to habit.

The moment, however, that any situation arises in which the intelligence is required to sort out certain patterns and drives the reason begins to function. Thus let us suppose that at an evening party coffee is served and the individual who has been idly chatting must suddenly decide whether or not he will drink coffee. Immediately the

intelligence must decide among several patterns which are in readiness. There are patterns concerned with the drinking of coffee and others concerned with refusing it. The reason now sets to work by a process known as reasoning. (This process is sometimes called thinking although thinking is better reserved for a wider usage which includes reasoning and all other thought patterns.) Intelligence, having recognized the problem, now sets to work at a process of analysis and weighing of alternatives which finally issues in a decision. The analysis runs something after this fashion: Will this coffee keep me awake? The last time I took coffee late at night I lay awake for hours. But it was probably the excitement which kept me awake, not the coffee. However, I can't afford to take the risk for I have an interview tomorrow at which I must appear at my best. I will refuse. In this analytic and weighing process the alternatives were roughly as follows:

Arguments for Coffee

Would enjoy it.

Probably it does not really keep me awake. It is rather the excitement.

Arguments against Coffee

May keep me awake.

Must be in best form tomorrow for interview.

The process of weighing now takes place. The argument against coffee is weighed as most important because of the impossibility of risking anything which would affect adversely a very important interview. Thus the reason analyzes the alternatives, weighs them, and balancing the two sides forms a decision. The intelligence now uses this decision to control the issuing drives. So it is that we are able to be more explicit in describing the controlling function of the intelligence. Intelligence by the use of reason secures decisions upon which the individual attempts to act in con-

trolling the personality. If he goes contrary to the decision of reason, as if in this case he should drink the coffee, then the patterns of the personality are dominating, overcoming the intelligence and dominating the I in spite of resistance. We say that the individual knows what is good for him but he won't do it.

CONSCIENCE

The term conscience has almost entirely disappeared from psychology, yet it is a phenomenon which receives everyday recognition. We might say that the conscientious individual involved in the last illustration would refuse the coffee. That is to say, we point out that he would follow the dictates of his intelligence. But we mean something a little more than this, if the concept of conscience is to have any validity. We mean that there is a function of his personality which comes to his aid in a special way, at this point, a way which is above that of habit and above that of reason. It is as though some special inner function extended to him a helping hand. If the idea of conscience is to have any recognition it must give similar aid to the intelligence in controlling opposing patterns, an aid which is beyond that of the commonly recognized functions of psychology. We, therefore, are forced to the conclusion that if in its functioning the personality exhibits any phenomenon of this nature which is to be called conscience, this conscience is in some way related to the x patterns within the total personality.

PERSONALITY DOMINATING HABIT

Human beings need not be the slaves of habit. We have had too much of a doctrine which taught that education was the weaving in the individual of a web of mechanically habitual reactions, a snaring of an individual in his own tangle of habits. Such a concept regards education as a

process of ossification. The longer the schooling, or the more ramifying the growth, the more rigid the individual and the less capable of dominating his own conduct.

In teaching we are constantly dealing with the building of habits. Habits are involved in every effort of the individual to drill himself in the process of reading, writing or spelling. There are certain habitual attitudes toward right and wrong which have wide general validity. Yet true education gives a man not merely habits but an intelligent control of his habits. David ate the shewbread, and the disciples plucked corn on the Sabbath. We must not merely train children to a few fixed responses, as if they were but a more complicated sort of railroad signal. Rather must we build in them endless habits and teach them to control them. We are concerned not merely with mechanical responses but with infinitely complex reaches of the higher aspects of personality. Education is not a process of congealing but of increasingly magnificent liberation of superior control.

CHAPTER XVII

PROCESS IV: THE PROCESS OF STIMULATING

IN MASTERY of the emotional process lies much of the power of controlling oneself and others. Emotional conflagrations such as those accompanying joy, anger, or terror are as dangerous to the personality and as difficult to control as physical fire in a material world. Their very acuteness, the rapidity with which they burst forth at the most unexpected moments, the violence which under certain circumstances they develop, have misled even our wary psychologists. For this very flaring forth of emotions has misled many into the belief that emotion is the accompaniment of such special states of the personality, rather than the steady accompaniment of every state of personality. Unless emotional activity burst forth it was not noticed. It was studied only as a specialized psychological accompaniment of certain states, rather than as the continuing condition of every succeeding state of personality.

Emotion is always present, but unless it assumes a dominating part in the processes of personality it is seldom observed or reckoned with. Emotion functions as a stimulant to the activity of the total personality. Whenever there is a strengthening of emotional tone there is a speeding up of certain specific aspects of the personality which are in accordance with its temporary special needs. Thus a child suddenly confronted by some horrible and dangerous person experiences an emotional shock which is accompanied by that series of speeded reactions known as flight. Love drives the individual in the direction of the beloved and keeps him close to that person in every way possible. Simi-

larly in anger the functioning of the total personality is very rapid and precise. A child in a temper becomes very active physically, and the stone which he throws at his enemy becomes extraordinarily violent and accurate. In fear, the avoiding reactions become very rapid. The individual cringes or runs away. So in all cases strong emotion is accompanied with a quickening of the activities of the total personality.

What we know of the mechanism is entirely in accord with the idea of the emotions functioning as a stimulant. Observations of psychological reactions in individuals under emotional strain have discovered certain causes for increased speed of reaction within the mechanism. The adrenal gland sends into the bloodstream a substance called adrenalin which speeds up the mechanism. During such an emergency as that of anxiety or joy the aspects of personality which are needed for the special situation are especially active. So violent may be the speeding up that the general functioning of the personality may suffer a partial temporary suspension so that the total energy of the life force may be marshalled on the battle front to meet the emergency.

Emotion is related to the total personality in terms of identity. This concept applied to emotion goes far to explain and resolve the controversies concerning the James-Lange theory which have so long troubled psychology. The James-Lange theory is too well known to need lengthy description here. Briefly, it is the theory that the origin of emotion is within the mechanism, rather than within the mind. According to James, an individual does not weep because he is sad, but he is sad because he weeps. It immediately becomes obvious that such a point of view is associated with the theory of mind-body relationships known as parallelism, which has been previously discussed. The

controversy concerning the James-Lange theory revolved about the source of emotional activity. Was it in the body or in the mind? This dispute is instantly resolved in terms of the theory of identity. We would thus say, "We weep when we are sad, and we are sad when we weep." Both are caused by the same basic situation in which the life force operated. Since emotion is contiguous with the total personality, all emotional phenomena of the personality occur in conjunction with all other phenomena of personality with which they are associated at the time of the total activity referred to. Thus the concept of unified personality simplifies and resolves another long-standing perplexity.

It is obvious that the total personality acts as one under a strong emotion. The total processes of personality are quickened. The mechanism in order to keep up its relationship of identity with the total personality is enabled by the device of glandular excretions to partake of this speeding up process. Excess of emotion is manifested via the mechanism in the contortions of anger or the flight of fear. Emotion is a psychological catalytic.

THE GROWTH OF EMOTIONAL PATTERNS

Emotional patterns develop and grow within the individual just as other patterns which have been previously discussed. Emotional states, such as anger and fear, which are noticed in young babies, must, therefore, be based on inherited patterns. By the process of learning the emotional states become associated with other patterns and so emotion becomes bound up with the whole life in all its manifestations. Thus it is obviously false to say, as has so often been said, that emotions are inherited or instinctive. Emotional patterns as they operate in the life of the adult are a complex of inherited and developed patterns.

EMOTIONAL STATES OF THE PERSONALITY

Emotional states having become associated with all the patterns of personality are continually functioning as an accompaniment of all conduct. In whatever we do there is a certain emotional accompaniment which, as it were, gives tempo to our action. Just as there is a train of thought patterns developing out of and into one another which rises and fades in a never ending flow, so there is a similar train of emotional patterns coincident with them and related in terms of identity. Just as the intelligence guides the will via the reason, so emotions determine the tempo with which the I executes the dictates of the personality. Thus we say that an argument becomes "more heated" as the emotional states become more potent and the excitability of the opponents becomes the more obvious. We say that a person "loses his temper" when the tempo of his acts seems to be so rapid that he loses control. In the ordinary activities of daily life, however, emotion proceeds as a placid flow, state succeeding state as patterns succeed patterns, each state being the appropriate accompaniment of the remaining activity of the individual. Physiological psychologists have identified a similar and corresponding state of affairs within the mechanism. Just as the violent emotional states accompanying fear and rage are accompanied by violent physical reactions, so ordinary and placid emotional flow is accompanied by a similar flow of minor movements of the mechanism. When these movements are not visible they are said to occur as internal and visceral movements and tiny muscular movements such as those of "sub-vocal talking," muscular movements of the throat and organs of speech which are evident while the individual is thinking verbally without talking aloud. We are at all times emotional.

This realization of emotion as the determiner of tempo explains the comparative buoyancy not merely of the same individual at different times, but the difference between different individuals. We say of certain individuals that they are "intoxicated by their own emotions." The emotion of the individual is so prominent that such individuals live on a high plane of emotional experience which makes them very active. Sluggish personalities, and people who are depressed or overworked lack sufficient agreeable emotional tone. They seek for artificial stimulants in alcohol, drugs or emotionalized experiences not needed by the normally functioning person.

Associated with every emotional state is an emotional tone which is pleasurable or painful. The tone of the emotion increases as the tempo of the personality increases. Most personalities prefer quick tempo associated with pleasurable emotional tone and avoid slow tempo and painful emotional tone. This goes far to explain human conduct. It also raises the question of suitable use of leisure. In leisure the individual seeks quick tempo and pleasurable emotional tone. But this should be balanced by emotion of a quieter nature, otherwise the individual becomes weary.

The fact that emotional states are not often visible confuses those who are unfamiliar with human personality. We frequently overlook the overtones of emotion. While violent emotional states tend to "spill over" and become obvious, frequently people can control themselves so that their emotional states are concealed from the onlooker. Thus we are deceived concerning the tempo of the reactions of our associates. We are inclined to judge the conduct of others by what we see and by what they say. This is a fallacious approach to understanding human reactions. It is always necessary to consider the emotional states if

we are to understand the total reaction of those with whom we deal.

It is obviously impossible to name emotional states except in terms of the conduct with which they are associated. Psychologists have frequently been led astray in this direction. Attempts have been made to list and even classify so-called "emotions." This cannot, of course, be done. The attempt is associated with a view of personality which regards emotional states as occasional rather than continuous phenomena. Even in violent emotional states it would be incorrect to say that the individual was experiencing the emotions called rage, or anger, or love. For rage or anger or love or similar special states are special states of the personality as a whole, not merely special states of emotion. We say the *person* is in a rage or angry or in love. These terms describe his total conduct, not merely his emotion. Speaking more correctly we would say that the individual is experiencing the emotional state associated with rage or anger or love. But the ordinary everyday states of the personality do not always have names. We cannot name the emotion associated with them. Only by identifying conduct may we identify emotion. The individual writing a letter is experiencing the emotional states associated with his writing of that letter. Similarly the individual drinking a cup of tea is experiencing the emotions associated with his drinking of that cup of tea. Our inability to classify or name emotional states should not mislead us into neglecting them in our dealings with others.

EMOTION IN LIFE

Emotion plays an important part in our everyday life. Most of us are continually dealing with others on the basis of what they do or think or say rather than on a basis of their emotional states. But it is the emotional state which

frequently dominates the individual. For emotion, in common with other aspects of the personality, has the power of dominating the I via the intelligence. It is generally recognized that the conduct of an individual may be emotional rather than intelligent. In everyday life it is a common thing to observe an individual who acts as he feels and supply a *post facto* reason. He deliberately remains with one he likes and is late for an appointment. He finds that the subway has been particularly slow and has kept him late. He walks where he will meet a friend, and then is surprised at the "accident." In many of our little daily acts we are guided by the emotional states which accompany activity far more than we are guided by our "intelligence." To understand individuals we must learn to deal with them on a basis of their emotional states.

EMOTIONS IN RELATION TO THE DISORDERED PERSONALITY

The psychoanalysts and sponsors of mental hygiene lay great stress upon emotion in dealing with disorders of the personality. For the function of emotion has much to do with the tangles in which the life stream may become involved. A child has a headache as a result of which he may stay home from school. A pleasant emotional tone follows. The patterns concerned with headaches and with getting out of a required task become associated. The next time he wishes to stay home from school he develops a headache. He has developed a series of conditioned patterns similar to a series of conditioned reflexes. His emotion has dominated his intelligence. His personality has become involved in a mistake. From now on it runs on the wrong track in this respect. The individual develops the custom of getting a headache whenever he wishes to avoid an unpleasant experience. So the personality may be warped and distorted by the involvement of patterns in ways which are undesir-

able. Whenever reality becomes associated with unpleasant emotional tones such errors as lying, stealing, or retreat from reality may result.

The psychoanalysts have evolved a technique for dealing with these involved patterns. When an individual comes for treatment they institute, by the method of discussion, questioning, sympathy, free conversation and so on, an exploration into his patterns in all directions. Seeking backward and attempting to unravel the experiences of the individual, they may find the point of divergence in early childhood. If this point of divergence is uncovered then there is hope for a cure of the particular trouble resulting from it. If the psychoanalyst discovers back in the individual's memory the origin of his divergence in that first headache he may have discovered the starting point. Although the patient has habits of developing a headache when a task is to be avoided still the intelligence is free from those habits. Similarly free are certain higher aspects of personality. If the psychoanalyst now brings these powers to bear in the person of the patient he may work a cure. If the individual can be made to see the origin of his act, if further he may be made to understand that in that early conduct he made a mistake in his thinking and that the pattern of his disorder conforms to the pattern of this original error, then he is in a fair way to recovery. In addition, the psychologist must secure the action of the patient's intelligence in overriding the habits of years; so may a cure be finally effected. By recognition of the way in which emotions can divert the life stream from its normal path the psychoanalyst has been able to work wonders.

CHAPTER XVIII

PROCESS V: THE PROCESS OF PURPOSING

IN THE understanding and direction of human conduct in the world and in school it is essential to understand the process of purposing. For purposing is the setting from which thinking itself arises. How shall we think clearly? How shall we train others to think? These have been age-long subjects of discussion. Time was when courses in logic were given to train men to think. Time was when endless courses in dialectic trained skilled theologians to the infinite dissection of ideas in endless array. But today we realize that purposing and thinking are inevitably tied up with experience, reality and action. The man thinks when he has dreams to realize and worlds to build. The child thinks when his own purposes push him forward to the accomplishment of his yearning for boats, and trains, kites and airplanes. He thinks and learns to think in a world of acting, doing, and making. To understand this world and its direction the teacher must understand the way the personality purposes and thinks.

THE INDIVIDUAL PURPOSING

A great deal of human conduct may be virtually called purposeless. An individual sits idly alone or among his friends, carried hither and thither by whatever occurs about him. He day-dreams, letting his fancy wander in whatever happy gardens it may. He reads, and the symbols awaken in him old associations. His friends chat heedlessly, and he listens to their chatter. He gets up and walks indifferently in one direction or another without any definite intention. He is a comparatively idle being, inactive, nonresistant, only

half alive. He is a sensing creature, content like a well-fed cat to let others do the work of the work-a-day world. People who habitually inhibit the flow of their life stream are called lazy. Others we look at with admiration as active beings who are making their contribution to an ever moving world.

But whether the individual is temperamentally active or inactive, at times he springs into active relationship with his environment. Suddenly a thought passes before him in which he recognizes a discrepancy between a pattern within his own being and a pattern in the environment, a discrepancy which he desires to eradicate. The housewife who has been sitting in the garden reading a magazine suddenly hears the clock strike six. Within her personality is a pattern in readiness for the act of eating dinner at seven. But the patterns in the environment do not correspond. The food is not cooked and the table is unset. She does not intend to change the pattern within herself and say, "I shall do without dinner." Rather does she determine to change the patterns in the environment. She therefore says to herself, "I must get up and get dinner." The remark is accompanied with a purpose. The act of the woman's intelligence by which she decides to become active in getting the dinner is an act of purposing. If she so purposes she will now rise from her chair, enter the house and go through a series of activities known as boiling the potatoes, frying the chops, preparing the salad, setting the table and numerous other activities. These all make changes in the environment until the patterns in the environment are brought into line with the original patterns in the woman's personality. Purposing is the process of determining to change the patterns in the environment until they correspond to certain patterns within the personality of the purposer.

In a previous discussion consideration was given to the

way in which the personality builds and rebuilds its patterns in terms of the environment. This process may be described as that of the personality influencing itself in terms of the environment. But the individual does not remain passive in the presence of the environment. If the patterns in the environment are not to his liking he proceeds to change them. Thus is the individual never a mere wisp blown by the willful winds of the environment. He himself is active in determining whatever pertains to himself. The individual relates himself to the environment in a new way. He is not merely a passive instrument, sensing what goes on about him. Stepping out of himself and into the environment, he refashions the world to the color of his own desires.

This active mode of the personality depends upon the process of purposing. Purposing is a function of the intelligence which comes into operation whenever the individual determines to make some change in the environment.

INCIDENTAL PURPOSING

But do we not recognize within ourselves a certain amount of hapless or almost aimless purposing? At times purposing is indefinite and incidental to the ordinary occupations of life. The life force flows in its ordinary course meeting with no strains or resistances to its ordinary functioning within the personality. On a sunny afternoon a person goes for a swim on the rocky seashore. The water is cold so he plays in the sun with a large rubber water-ball. Dropping the ball by accident into a brook which runs down the shore in its channel he observes that it is carried swiftly by the stream down to the sea. He throws it up the stream and it floats back toward him. He now has the notion of throwing the ball up to the head of the stream where it issues from the grassy bank and watching it sail

back to him. It is here that purpose enters. He says to himself, "I will try to make the ball float all the way from the bank to me as I stand by the sea's edge." His conduct which follows is a series of attempts to alter and arrange the environment to fulfill his purpose. Standing at the foot of the stream he throws the ball toward its head. His aim is poor. Next time he adjusts it. The ball reaches part way up. The next throw is stronger. The ball reaches its goal at the head of the stream but is caught there in the waterfall and rolls round and round in its place. In succeeding throws it encounters protruding rocks here and there. As each rock is discovered it is removed until the channel is clear. At last the ball is successfully thrown to the top of the stream and sails the complete channel to the sea's edge. The individual is satisfied. He has made the environment conform to his pattern. His purpose has been fulfilled.

SERIOUS PURPOSING

There are times, however, when we "mean business." In addition to our whims and passing wishes to alter the patterns of the environment we have serious desires and intentions to effect such changes. The more pressing the need for such a change the more serious does the purpose become. Thus Robinson Crusoe in the wilderness was constrained, when he had no boat, to build a raft lashed together with spars to carry ashore what necessities he could find on the wrecked ship. The raft was a desperate need, and the purpose was a serious purpose, which was executed with great vigor and determination.

THE SIMPLE AND COMPLEX ACT AND THE SUB-ACT

Such an act of making a raft is a comparatively simple one. The need was directly for a raft. There were no par-

ticular problems to be solved in the matter. The complete process of making the raft was foreseen and foreunderstood. The spars were handy, the rope was near-by and the tying of the materials was a matter of simple skill. But all acts are not so simple or so direct. Men deal with the raising of the Empire State building or the construction of the Washington Bridge across the Hudson. Such acts are exceedingly complex. They branch off into numerous subsidiary acts. In the construction of the Empire State building various matters had to be considered. The walls had to be set up. Thousands of windows had to be placed. Transportation within the building had to be arranged. Heating had to be installed. Each of these was a subsidiary yet unified part of the whole act of putting up the building. Such partial or contributory acts may be called sub-acts. When any act is not a simple one, but one which divides up into parts which must be regarded as units and separately treated, these branching units are sub-acts.

THE PURPOSE AND SUB-PURPOSE

Now this distinction between the act and the sub-act has particular bearing upon the matter of purposing. For, corresponding to the act and the sub-act are the purpose and the sub-purpose. The construction of the Empire State building when regarded as a single act is associated with a single purpose. The purposer wished to make the midtown district of New York conform to a pattern of his own mind which depicted for him a huge building towering above all others as the greatest building in the world. But the process which took place between the issuing of the purpose and its consummation was indefinitely worked out. The gap between the purpose and its fulfillment was bridged only in the imagination. Before that gap could be actually bridged in fact, many sub-acts never even thought of when the main

act was initiated had to be performed. Furthermore, many of these sub-acts were literally impossible to men at the time when the main act was initiated. They depended for their solution upon relationships in the total environment which were at that time undiscovered and unrecognized by man. The sub-acts involved sub-purposes and the sub-purposes involved problems. Only when the problems were solved could the sub-purposes be executed and only when the sub-purposes were executed could the main purpose be fulfilled.

To be more specific, when the Empire State building was started there was talk of a tower to surmount it to which hypothetical dirigibles could be moored. It is said that when that tower was first projected the type of metal of which it was to be made was unknown to anyone. When the construction of the building had been started the sub-act of preparing the metal for the tower had to be faced. The sub-act involved the sub-purpose which was to provide a metal suitable for weathering and strains peculiar to that high altitude. The sub-purpose depended for its fulfillment on the solution of a problem. That problem was to discover what metal would be suitable for the tower. Research was instituted. A suitable metal was discovered, the sub-purpose was fulfilled, the sub-act was completed and so the building was topped off with its shining tower.

We have now reached a significant conclusion. A problem can arise only in connection with a sub-purpose. Hence a problem is inherent only in a complex act. A problem cannot arise from a simple act since a simple act is one in which every part is anticipated. The genuine problem is never a complete act. It is never a genuine act at all. It is only a part of an act. It arises in the course of other acts via their sub-acts and so must be regarded not as a separate but as a related entity. Once the problem is removed from

its context it becomes artificial and unreal and is no longer worthy to be called a true problem.

There are two types of sub-purpose. The one is virtually identical with the purpose. If the sub-act is straightforward and clear and involves no problem then the sub-act is virtually a subsidiary act, not a simple act. But when a problem is involved in the execution of the sub-act then the purpose is very different indeed. The purpose now is not to complete an act but to solve a problem. That is to say, the purpose is not to deal with an entity but with a relationship.

Usually a problem is a pair of entities, the relationship between which is unknown and is being sought. Essentially a minimum problem is an equation involving two entities and a relationship between them in which either the relationship or one or both of the entities is missing. The person who seeks to solve the problem seeks to discover either the relationship or the missing entity. For example, I am cutting the lawn when an iron nut falls off the mower and it will not work. The sub-act necessary if the lawn is to be finished is repairing the mower, the sub-purpose is to find the relationship between the nut and the mover. I discover this relationship, fasten on the nut, the mower is repaired and I finish cutting the lawn. In such a case the problem was to discover a missing relationship. Again, a friend has forgotten something. He gives me his keys so that I may enter his house and secure it. Of his twenty keys I do not know which one will fit the lock. My problem is, which key will fit? In this case I know the relationship which I wish to secure, namely the opening relationship between the lock and a key. I know the lock, the first entity, but the second entity, the key, I do not know. By trial of the keys I find the missing entity or key and my problem is solved. A problem may only arise in pursuance of a sub-purpose.

Furthermore, a sub-purpose seeks to discover either the relationship between two patterns in the environment or one or both of the patterns, the relationship between which is known.

PRIMARY AND SECONDARY PROBLEMS

It is useful to distinguish between problems which are primary and those which are secondary. Problems which arise from a sub-act which is executed by the person who executed the main act are primary. If I purpose to build a house myself without any help, in the course of that building I would carry out many sub-acts, such as laying the floor, putting in the windows, and putting on the plaster. Each of these sub-acts might involve problems. I do not know the proper formula for plaster. I must find out how to fasten in the panes of glass in the sills. Each of these problems is to me a primary problem, my own problem because the sub-acts from which they have arisen are all my own acts and part of my own main act. If on the contrary I do not build the house myself but delegate it to others, the situation is entirely changed. The main act and purpose, that concerned with building the house, is my own. The acts of drawing the plans are given to the architect, the act of laying the foundation to one contractor, building the structure to another, doing the glazing to a third. In such a case the sub-acts are not my own acts. They belong to others. These sub-acts are merely secondary acts to those who carry them out, and the problems which arise from them are secondary problems. Primary problems are those which arise in the course of sub-acts carried out by the originator of the main act. Such problems are usually attacked with more vigor and thoroughness than secondary problems because the original purpose is strong and serious and provides drive for the sub-purpose. Secondary prob-

lems arise in the progress of sub-acts which are derived from the main acts of others. Lacking the drive, the influence of which is supplied by the need to the main purpose, the delegated problems tend to be lamely carried out, due to lack of interest in the delegated sub-act.

REAL AND ABSTRACT PROBLEMS

A further distinction, that between real and abstract problems, may clarify the nature of problems. There are certain problems which are encountered in the process of the sub-acts from which they arise. Thus the director of a play and the stage crew and the actors and designers are concerned, during rehearsing of the play, with real problems. Such problems, because they are concerned with purposes which are close and pressing, are found interesting and the solution of them is vigorously pursued. But problems are not always solved in the context of acts to which they are related. Thinkers, philosophers and research students frequently work with problems which are detached from their structure of real acts. The relationships between certain patterns in the environment are sought in the hope that once those relationships have been discovered they may be named and thus become realizable as concepts. The concepts once having been isolated and named there is an increase in human knowledge in virtue of which many real problems may be solved. Thinking is thus carried on away from the scene of action. Thinking becomes a short cut for acting. Instead of actually moving about parts of the environment until the relationships between them are revealed, thinkers deal with the patterns of thought which represent those realities. Thus thinking is frequently done in words which stand for patterns in the environment, in terms which are abstract rather than concrete. So real problems which deal with sub-acts actually in progress may be

distinguished from abstract problems which deal with relationships.

THINKING

Thinking goes on when the individual deals with real or abstract problems. True thinking goes on only in the presence of a problem. There is, in addition to what has been called thinking, the train of superficial thoughts which accompany the changing of personality. This thought accompaniment of the total functioning of the personality is always with us and continues in a never ceasing flow. When it encounters no resistances it is a phenomenon accompanying the living process of the personality. Patterns succeed patterns in a relationship which is in perfect accord with the remaining activity of the individual. If the individual lies still, in passive sensing, his thoughts go roving in day-dreams. On the contrary, the moment the intelligence takes over any active control of the being which calls for a definite relating and adjusting of the patterns in the personality or in the environment the thought process becomes more active. It is in such cases that true thinking occurs. The term thinking may, if it seems desirable, be extended to include all of the thought processes. True thinking, however, only occurs when the personality encounters certain resistances in the carrying out of its purposes. When an individual is engaged in a sub-act which involves a sub-purpose, thinking is bound to occur. When the personality encounters a problem which it purposes to solve, thinking occurs.

Thinking may deal with real or abstract problems. For example, when the builders were engaged upon the apse of the Cathedral of St. John the Divine in New York, they hoped to raise the great pillars which separate the chancel from the ambulatory as monoliths. To raise these great

masses of stone to the top of Morningside Heights was no mean problem. It required very active thinking. One scheme after another was used and actually tried out but the pillars were broken. It was finally decided to erect the pillars in two pieces instead of one. Such a struggle with materials in the actual process of an act may be called a real problem. The thinking which goes on is concerned with an actual problem which arises via an act in actual progress. But thinking also occurs in the process of the abstract problem. Here is the purest or truest thinking of all, for it deals entirely with patterns of the personality and in the absence of the environmental patterns. The patterns in the environment cannot be actually moved about and altered as a leg may be fitted on a table. The concepts which are the named representatives of patterns in the environment are used by the thinker instead of the patterns in the environment. Thus thinking is the moving about of real or abstract patterns in order that relationships may be revealed by proximity. So Plato wrote his *Republic*. When one or more of the patterns is an actual pattern in the environment the problem is a real problem. When the patterns are entirely those within the personality the problem is an abstract one. But in any case the process of moving patterns and inspecting them to discover relationships which are missing in a problem is called thinking.

ARTIFICIAL OR FALSE PROBLEMS

Problems which have been isolated from their setting in real acts are one step removed from life and have been called secondary problems. When such secondary problems involve a missing relationship or entity which is common knowledge and may be discovered by learning, it may be called an artificial or false problem. Such a false problem, since it is two steps removed from an actual life problem,

may be called a tertiary problem. For example, suppose in his school experience a small child who has not yet studied the multiplication tables encounters a problem in arithmetic: $6 \times 2 = ?$ Here is a problem which involved two entities and a missing relationship. The problem is once removed from life because it occurs in isolated form entirely separated from any act which the child is carrying on and so from any real purpose. It is twice removed from life since it is not a real problem which is unsolved by men such as the provision of air-transportation for the use of the everyday traveler. It is a problem which has been solved by millions of men so that the solution is as much a matter of common knowledge of the ordinary man as the entities of the problem. Anyone who knows the multiplication table can tell the child the answer. To pretend that it is a real primary problem and to expect the child to work it out with sticks is absurd. Such a problem may be called artificial, false or tertiary. It cannot be anything but an anaemic thing, boring and nauseating, unless its tertiary nature is recognized and it is artificially placed back in an act once more. The more nearly it is placed in a real act the more valid does it become. If it may be treated as a challenge to the child it becomes a secondary problem. While it is removed from real life, yet it is restored to its place in an artificial act such as that of "doing one's best" or "showing how able one is." If the problem occurs in the course of scoring by throwing with bean bags on a number board, then it is a primary problem and provides the maximum interest and learning value to the pupil.

THE PROCESS OF THINKING

But whatever be the nature of the problem, the thinking contains certain basic processes. When the problem involves the search for a missing relationship between two

entities, these processes of thinking proceed somewhat as follows:

1. *The Occurrence of the Problem*

Thinking occurs only in the presence of a problem. Certain concepts must be present to the individual under conditions which reveal a missing pattern. The missing element in this case is a relationship. Thus when a steel wire puzzle is given us in two pieces which must be fastened together a problem arises. The pattern represented by one piece of the wire is present, so also is that of the other. Knowledge of the relationship is missing.

2. *Shifting the Concepts or Patterns*

The next step in the thinking process involves the shifting or moving about of the patterns. This may be done either within the personality subjectively by setting the patterns in relation to one another in different ways or by actual manipulation of patterns in the environment. Either the real pieces of the puzzle may be placed in some relative position and shifted if necessary, or this may be done subjectively in the thoughts.

3. *The Detection of Hypothetical or Real Relationship*

Correspondence between the two patterns may be detected instantly by virtue of accidental proximity. If not, the shifting process continues until some relationship between the two patterns is observed. After a certain amount of shifting and moving of the two parts of the puzzle a relationship may be revealed by an accidental slipping together of the parts. Or a certain correspondence between the two patterns may be observed which may be regarded as of possible significance. Possibly the width of the wire of one piece may correspond to the width of an aperture

on the other piece. The supposed correspondence may not be detected between the two entities, but it may be suspected because of the resemblance of the entities to two other entities of another puzzle.

4. *The Hypothesis*

The detection of some imagined or real correspondence between the entities is followed by an hypothesis which states that the relationship under consideration may be the relationship between the two entities which is being sought. With respect to the puzzle the hypothesis might state, "This relationship may be the one which will solve the puzzle."

5. *Testing the Hypothesis*

The hypothesis may now be tested in the light of the original problem. If the correspondence noticed is the only one needed, or if it is accompanied with all the other correspondences which are required to reveal the missing relationship, then the problem is solved. If the relationship between the two parts of the wire puzzle is the one which fits the two wires together, or if when this relationship, say of placing two wires end to end reveals other relationships which combine to reveal the relationship which solves the puzzle, then the puzzle is on the verge of solution.

6. *Solution Following if Hypothesis Seems Sound*

Once all the relationships sought fall into line the puzzle is solved. Thus the two pieces of wire are pushed together and the two patterns in the environment are related according to the original purpose.

7. *Further Shifting and Hypotheses and Testings Following if Hypothesis Has Been Unsound*

If the hypothesis does not reveal the full relationships sought further shifting, hypotheses and testings follow just

as in the first attempt. Thus the puzzle is moved about and freshly considered as before until a required relationship is discovered.

8. *Final or Tentative Solution on the Basis of Probability*

The required relationships all being observed, the puzzle is completely solved or partially solved, as the case may be. If the problem concerns a simple puzzle the pieces are put together and the problem is completely solved. In the case of more complex problems tentative solutions have to be accepted as a basis for action on the basis of probability. If, for instance, a crossword puzzle is to be completed in competition for a prize the solution may be made on the basis of probability. Filling in all the squares the competitor sees a problem which is for him solved. All the patterns seem to be fitted together. He assumes that since all patterns seem to fit fairly well the problem is solved. He has accepted the solution not on a basis of certainty but on a balance of probability. He does not wait for certainty before acting. Having discovered what is for him the solution he now acts on it. What follows depends on the objective rightness of a problem which was from a subjective point of view solved. He mails in his answer and is right or wrong accordingly as his tentative solution on the basis of balance of probability was in correspondence with the objective solution. So it is in the everyday affairs of life. We solve our problems on the basis of the balance of probability, and accepting a tentative solution act upon it.

When a problem involves not a missing relationship but a missing entity, a different thought process ensues. This analysis is helpful in solving such a common problem as buying the most satisfactory umbrella, watch or automobile. Then thinking proceeds somewhat as follows:

1. *The Occurrence of the Problem*

As in the previous case the problem arises under conditions which reveal a missing pattern. In the present type of problem, however, the missing pattern is an entity and not a relationship. Suppose a farmer were faced with the problem of getting a new wheel for his farm wagon. The old wheel is broken and he needs a new one. The problem is to provide a new wheel for the wagon. The wagon is one entity. The relationships of the desired wheel to the wagon are known. The second wheel is the missing entity.

2. *Making an Inventory of the Required Characteristics of the Missing Entity*

The first step in the search is to make an inventory of the characteristics which the missing pattern must possess in order to fulfill the required relationship most satisfactorily. The farmer wishes a new wheel, of a certain diameter, of a certain stoutness, constructed so that it will fit the wagon, and preferably red in color. These things he has in mind at the start. Certain other characteristics may occur to him during the search. In thinking, the process never goes on in steps which are isolated. A shuttle-like process of referring back and forward is continually operative.

3. *The Search for the Missing Entity*

Now the environment must be searched for a pattern which bears the correct relationship to the known pattern. This relationship will be most satisfactory when the specifications of the inventory are most nearly met. The search must be carried on in accordance with the nature of a search as follows:

a. Delimitation of the area of search.

From previous experience one is likely to know the place in which to search for the required entity.

If not, attempt should be made to find out a likely place so that the limits of its area may be set. One or two or several equally likely areas may be discovered.

b. Search of the areas, the most likely one first. Others in order which seems best.

Thus the farmer in his search for a wheel either calls on his previous experience or inquires where such a wheel may in all likelihood be bought, and sets out to visit the places suggested.

4. *Discovery and Comparison of Promising Entities*

If the search reveals a pattern which corresponds essentially to the specifications of the inventory for the required pattern the search is ended and the problem solved. If, however, the search reveals several entities which correspond in part to the inventory of required specifications, then the weighing of the discovered entities must take place. The entities are weighed in terms of the presence of the essential characteristics and the importance of the special characteristics. If the farmer discovers a wheel which exactly meets his requirements he will buy it and his problem is solved. If, however, a wheel of the exact description cannot be found, but three wheels in different places which meet the requirements in part, the three wheels must be evaluated or weighed in terms of the related characteristics. The first wheel is red, the correct stoutness, but the diameter is too small. The second wheel is the right diameter, yellow in color, but too slight in build. The third wheel is a second-hand one, but it is the correct diameter and thickness and matches the other wheel in every respect, including the fact that it is no longer red. It is also cheaper than either of the new wheels. The weighing process ob-

viously results in the selection of the third wheel. For although it does not meet the specification perfectly it meets the essential specifications of size better than any other and its lack of newness and the red color are comparatively unimportant, especially when compensated for by a factor which had been considered a non-variable, namely that of price. Thus the pattern discovered by a search is one which is related in the way desired to the first entity of the problem.

5. *Final or Tentative Solution on the Basis of the Balance of Probability*

The problem is now regarded as solved. If the entity proves later on to be correctly related to the first entity the problem has received an undoubted and final solution. If, however, as may happen in the case of abstract problems, the entity cannot be tested to perfection, it is accepted tentatively on the basis of the balance of probability.

APPLICATIONS TO EDUCATION AND LIFE

How may a knowledge of purposing and thinking assist in the guidance of human conduct? Grown-ups and children think in a world of experience and actions. The purposing which leads to acting and learning does not arise out of inertia. It comes from the occurrence of changing relationships between the individual and his environment. Consequently the worst way to secure purposing and thinking is to fasten the individual to a locality or base. The best way is to allow him to move about in a varied environment. As individuals encounter reality they realize needs. So a child in school may realize the need of a school pet park, or an outdoor gymnasium. The more serious the need the more vigorous the purposing. The fulfillment of the need raises problems. In the solution of these problems indi-

viduals think. So it is clear that our much coveted training in thinking for children is to be secured in a world of reality and activity. Children think best in a world of experience, in a school world in which trips are made, picnics planned and carried out, buildings erected out of doors, school affairs planned and governed, stories written and published. It is in the presence of real problems and experiences that children learn to think.

In the world of purposing and of thought contact with reality precedes successful thinking. In directing his own thinking, and that of students, the teacher who understands the processes of thinking and problem solving may give intelligent guidance. The individual who selects a radio may do so economically if he thinks in orderly fashion. The teacher may help children to think by guiding them in the economical solution of the problems posed by their school activities. With maturity abstract thinking appears. When the patterns of personality are so firmly built that the individual may think in terms of patterns instead of realities, then abstract thinking occurs. In course of time novels may be written and philosophies duly propounded.

CHAPTER XIX

PROCESS VI: THE PROCESS OF INTEGRATING

THERE IS a special process of personality in virtue of which all its diverse functions and processes act as one. The process of integrating relates and unites all the diverse processes of the individual in such a way that they all occur at once in the degree in which they are called upon by the personality. Once the purpose has been issued the integrating process gathers and conserves the total resources of the personality toward the carrying out of the purposed act. The integrating process binds them all together in a unified act. If the carrying out of any particular task involves, as practically every act does, certain sub-acts, then the full battery of personal resources may be called into action in the sub-act as they were in the original act. Intelligence, emotion, together with all the processes and functions of personality, may be brought into play. But there are further resources which need consideration. There are in addition to the several processes mentioned certain special ways of behaving which need to be considered in relation to the process which integrates them. Certain of these have been discussed before in other settings, as, for instance, thinking, habit, and mechanism. Others, such as memory and imagination, have not been touched on. These aspects of doing will be discussed, in what follows, as special resources which are mobilized by the individual in the process of integrating.

THINKING

The process of thinking has been considered, first as a general thought accompaniment of the functioning per-

sonality, second as a process which is specially associated with problem solving. A third point of view may regard thinking not merely in its relationship to one specific problem but in its relation to problems in general. We may thus regard its nature as a resource of personality, and consider the way in which the integration process may call upon thinking in the carrying out of the individual's purposes. My thinking is something that I can rely on to assist me in carrying out the work in hand. Suppose, for instance, that on a summer afternoon I am on an outing with some friends who are fond of water-color painting. One of them says to me, "Why don't you paint a picture yourself?" I reply that I have done no painting out of doors, but am at last persuaded to try. At that point I may be said to purpose to paint a water-color. Now as I approach the making of the painting I do not do so without a certain confidence. Yet that confidence is not based upon a knowledge of what I am to do or how I am to go about it. I have no skill in the matter, I have no experience, I have no set of rules which I may mechanically follow while my thoughts are engaged on other matters. Rather do I depend upon a resource which I might term my power of thinking. Here is a resource which the personality may call upon as a means of solving the various problems which arise from the sub-acts which are to follow. Thinking is first of all a resource which the personality depends upon. So when we purpose we often enter a dark alley. We know where we hope to come out at the other end, but we do not know what inter-venes. We depend on the use of a light to carry us by each obstacle and around each bend. In embarking on any task we depend upon the power of thinking to solve our problems as we go along.

But problems are not all solved at the beginning. There are certain types of manual work in which it may be said

that the plan is made first and all that is done subsequently is to follow the plan according to habit. Usually, however, plans are but roughly made and partly altered as the work is in progress. There is a referring back process associated with most orderly thinking. Planning, problem solving and executing of the task in hand seem to run along together. For instance, when I begin to paint my water-color I intend to include a certain cove. When I get a piece of paper from my friend I see that on account of its shape I will omit one bank of the cove. Thus is my original plan altered by a stepping back process. As I proceed I discover that in placing the objects I have secured an undesirable lack of balance. Once more I change, and to solve a new problem, I decide to include just the edge of the second bank to improve the design. Thinking is a shuttle-like process, jumping backward and forward, as the solving of sub-problems throws new light on main ones. It is this process which the personality may rely on when aiming blindly to carry out some obscure task.

REMEMBERING

A second process of the personality on which it may rely in carrying out its work is that of remembering. The power of remembering is usually referred to as the memory. In whatever we do we rely on memory. Memory is merely our record of ourselves. Just as we might measure the height of a shrub by the number of inches it has grown, so may we measure a man by the number of his memories. Memories are the terms in which we grow. Memory is that function by which the accretions of experience become incorporated in our personality. We are what we remember. Let our memories vanish and we vanish with them. By virtue of memory experience is congealed into personality. By means of memory our living becomes more than transitory.

There is something peculiarly intimate about the memory which makes it closely identical with the self. For this reason the memory of others is almost entirely unknown to us. Our estimate of the memory of others is based upon a guess which we make as to what the memory will be. That guess is based upon our knowledge or assumption of what the experiences of the individual concerned have been. We assume that if an individual has gone for a walk, or seen a certain talking picture, or read a certain story, he will have memories concerning the experience. What we know of the individual's memories is based on our estimate of the experiences he has passed through. We identify him with what memories we estimate that he has. What we know of his experiences gives us a key to his memories and it is only to this extent that we know any other individual.

How different it is in the case of our own personality. Each of us knows himself. But how different is this knowledge of our self from the knowledge which any other individual has of our *self*. No other individual can possibly know the fullness of our experience which remains with us in the form of memories. Furthermore, at any given moment we may know ourselves only to the extent to which we recognize our memories. And our temporary memories are but a deficient representative of our experiences.

We may recognize three aspects of memory—unconscious memory, resident memory, and active memory. Our unconscious memories are those which are left over in our personalities by experiences which have never come before our attention. We experience many things to which we do not attend. At any given moment we are always absorbed in some certain experiences of the total group of experiences through which we are passing. As we drive an automobile along the road we are acutely conscious of the road and its curves and its traffic while the scenery and the many

activities by the roadside pass, as we say, unnoticed. But sometimes these unnoticed experiences seem to have been unconsciously recorded. They appear in consciousness in the form of memories although they have never been consciously experienced. It is claimed that the "after-image" of a scene may, with some individuals, appear to be more real and distinct than the original image. Some unusual persons report that a street scene which has not been consciously attended to may emerge in the image-memory so clearly that the printed name of the street may be seen, the house numbers, and even the numbers of the street cars. Such unconscious memories may sometimes be recovered and brought before consciousness by hypnosis or psychoanalysis, thus revealing to the individual concerned hidden knowledge of the self.

Resident memories are those which are the result of conscious experience and so are, theoretically at least, within the possibility of recall. They have possibly sunk so deeply into the unconscious that they may be at a given moment beyond recall. Many things which we learn are, as we say, forgotten. In reality nothing is entirely forgotten. If it has been part of our experience it is part of our memory and if certain experiences ensue is liable to recall. Such recall may never come, yet the record is complete in the personality. Personality is a self-recording phenomenon. Whatever we experience is recorded in the resident memory. Thus old people recall experiences which have been forgotten since childhood. The sight of a certain face or of some old scene may suddenly bring back a flood of memories which would never have been evoked had not certain patterns in the environment occurred in conjunction with certain patterns in the personality of the remembering individual. This great mass of memories, this perfect record, part of which, due to intensity or the original experience

or its recency, may be within the power of instant recall, and part of which seems to have slipped away, may be called the resident memory.

Active memory is that which is before us at any given moment as our temporary self. At no given moment do we ever seem to see our total self. There is a tradition that at the moment of death the whole record of personality seems to pass by in an instant, and people are said to see their whole life pass by in a brief panorama. But ordinarily our conception of ourselves is partial and temporary. As we analyze flowers we see ourselves as botanists, as we play the piano we are musicians, as we study we are students. In moments of habitual response such as dressing or eating we seem to interact with the environment and to think of ourselves in terms of the experiences through which we are passing. Thus we may often recognize in ourselves a sort of Dr. Jekyll and Mr. Hyde. We do things which in later moments surprise us. We say, "Could I have done such a thing?" and by "I" we mean the memories which are at the moment before us. We seem to have different personalities, but we have not. This illusion has led some to suggest that we have a series of selves, the self that does this, and the self that does that or the other thing so different and often so seemingly incompatible. Yet there is but one personality and but one self which is identical with the personality. We have one self but many memories of self. One group or another may come before consciousness as active memory. Our active memories are what we recognize at any given moment as our self. What we remember we seem to be.

Therefore we can only in a very limited degree know any other individual. We cannot know another's experiences, and aside from it we cannot know his memories. What we see of most individuals is just one phase of their

experience, that phase of it which they reveal to us. To a very large extent we find others to be what they wish us to think them. They consistently present a front which is the front they wish us to see. We cannot pierce into the personality-tight compartments of another's memory.

Conversely it is only by memories that we may know ourselves. Furthermore, these memories are very misleading unless some sort of conscious record is kept of them. It has already been pointed out that we are momentarily under the illusion that we are as our temporary and current memories. Thus we may have most inadequate and incomplete notions of our own self. The difficulty of seeing ourselves as others see us is well known. We must pause to consider, we must reflect, we must self examine, we must make some written record if we are to see our memories of our own being in any well-rounded way. Otherwise we identify ourselves with our moods, our desires, and our passing actions. In this necessity to look deeply into our own personalities lies the speciousness of the Socratic injunction, "Know thyself."

MEMORIZING

The old tendency to regard memory as a faculty of the personality, a separate entity which could be called into play and made to function well or poorly, has been most unfortunate. Memory is not a faculty but memorizing is a process of personality. Rather might we call it the remembering attribute of personality. We will then not make the mistake of thinking of it as a separate function which may be strengthened and developed like a muscle of the body. This will enable us to avoid the error of believing that the memory can be trained or improved or strengthened so that one will remember more or better. Memory is ever

and only the record of experiencing, and remembering is attending to the records of past experiences.

A further error in understanding the nature of memory is made by those who regard the memory as a sort of storeroom, like an old attic in which the properties of the passing play are stored away. This false notion regards the act of remembering as if it were a dipping back into this storeroom, the making of a trip to move out some past experience which is to be called into use. There is no such storing away of memories. Our memories are ever with us and are actually a current part of our personality at all times. I am never my self, searching for my memories, but I am my memories. Memory, like all other phenomena, is contiguous with the total personality.

Such false views as those discussed are responsible for a common misconception of the process known as memorizing. A certain useless plan of action is adopted and called memorizing. This is then confused with the process of learning. Thus a misconception of the learning process which is very common among laymen and school teachers is developed. Swayed by the notion that there is a certain faculty of memory which can be used by pupils to enable them to furnish a storeroom also known as memory, pupils are set to work at unrelated facts. The pupils are supposed to pack the facts into the storeroom by frequent repetition and thus their memory is strengthened and the facts are always available to be trotted out of the storeroom for use when needed. Children are set to work at this absurd process, and when they are able to reproduce certain patterns it is mistakenly thought that they have learned.

Learning is the process of experiencing. The narrower the bare factual experiencing, the narrower the learning. The wider and richer the experiencing the more the remembering and learning. The richer the experiencing the

richer the memories and so the richer the knowledge of the individual. Experiencing, learning and remembering are all positively and proportionately related.

Thus there is but one way to improve remembering, and that is by improving and enriching experiencing. All systems of so-called memory training are based on this plan. They are not methods of training memory, which is impossible, but of training experiencing. The pupils are trained to experience more completely and richly. The man who wishes to remember names is taught to associate some fact or set of facts with the name itself. Meeting Mr. Brown he develops the patterns concerning Brown until they are no longer unrelated but form a distinct pattern. He speaks to Mr. Brown, calls him by name, thus increasing his experience of the name; he talks to him for a moment and associates some few facts such as his origin in Ohio and his resemblance to his wife. A year later he remembers Brown. Not because he has improved his power of remembering Brown but because he has improved his experiencing of Brown. But our mnemonics may sometimes play their tricks and help us to realize that our memories are just our unimprovable selves. The teacher who enthusiastically discovered a way of helping her children to remember by enriching their experiences by means of imagery discovered this to her sorrow. To remember the name of the poet Bobby Burns the children were told to visualize a picture of a policeman in flames. The deficiency of the system was revealed by the pupil who pointed out that the same thing might remind one of Robert Browning. Education should not only train children to remember; it should make their memories.

CHAPTER XX

FURTHER RESOURCES OF PERSONALITY

IMAGINING

INTIMATELY connected with remembering is the process of imagining. For the materials of imagining are the memories. Just as we cannot learn without many memories, so without memories we cannot imagine.

In its most limited sense imagination, the agent of imagining, may be regarded as dealing merely with images. An image is a pattern coming before consciousness which seems to resemble and is a substitute for a sensory impression. A visual image of some scenic gem seems to the imagining personality to resemble an actual environmental visual reality. An auditory image of a calling voice seems to be like an actual call which one hears with one's ears. Imaginations must be based upon real experiences which come before consciousness as memories. An imagination is a complex pattern which comes before consciousness.

The distinctive characteristic of the imagining phenomenon of personality is that by its means these patterns may be treated independently of the environment. Imagination is the ability to recombine memories in such a way that the resulting experience while in terms of conceivable objective realities is, nevertheless, independent of them. It endows the individual with the power of envisaging the environment in new patterns without actually altering the patterns in the environment. The artist, basing his imaginings on many memories, is able to conceive of a new picture which was never beheld by any man.

But while in its simplest sense imagination may be limited in its materials to mere sensory images, in a wider sense

it may be concerned with any memories of which the individual may become conscious. Imaginations may deal with the memories of thoughts or emotions or feelings or attitudes or pains or pleasures or with any of the forms of experience in which memories may occur. The real substance of imagination is not mere sensory impressions but all the complexities and patterns of the personality. In virtue of our memories our total experience is always at our command.

How inspiring it is to realize that nothing of our experience need be wasted. Coming into the world as literally nothing but potentialities we actually pass through a process of becoming. Hour by hour and day by day we continue in that process until the individual who was just no person becomes a personality with a separate and independent existence. By no other process could independent beings come into existence. Such a process demands that we begin as nobody and develop in such a way that the gains made are cumulative and do not pass away in the process of experiencing.

Herein is the vast difference between animals and humans. Fruitful as animal psychology may be in helping us to understand the human mechanism, the interpretation of personality in terms of animal psychology is entirely inadequate. Animals have no personality. They have animality, but that is vastly different from the attribute which belongs only to humans. The difference is most obvious when we consider such characteristics as imagination. Only humans have the power of accumulating experience which enables them to sum it all up in the self-recognizing term which we use when we say "me." Only humans can draw from the total of experiencing which they call themselves and recombine their experiences in new ways. By virtue of the imagination we make new forms and patterns. By the

process of imagining we may recombine patterns of the personality in a limitless fashion.

But the true grandeur of the individual is evident in the way in which the imagination may be used by the I. It endows the personality with a power over the environment which has made him master of the world in which we live. In virtue of the imagination the individual is not compelled to deal merely with environment, shifting its patterns here and there in clumsy fashion by process of trial and error until he secures a desired result. A dung beetle rolling its ball of dung across the road will, on encountering an obstruction, push and pull and circle about and try this, that and the other thing until the proximity of certain patterns in the environment actually results in successful rolling of the ball. A human being is not limited to such haphazard methods of dealing with the environment. By the use of his imagining powers he may alter the patterns in his personality which represent those in the environment and then when he has secured the desired pattern in his imagination he may set to work to make the environment conform to it. Herein lies one of the great triumphs of the personality, its ability to recreate the environment in its own terms. Here is a dignity to which only the human personality can rise. Man becomes to a large extent a creator. Conceiving within himself some new vision, some painting, some poem, some stirring tale, some dynamic thought, he sets to work and makes his dreams come true. Man imagines a new thing never seen upon land or sea until he brings this new thing into being. Thus imagination conquers the world.

HABIT

The personality may rely upon habit just as it relies on other resources such as thinking, memory and imagination.

We may distinguish incipient habits, unitary habits, and habit systems. Incipient habits are modes of action which have begun to be formed but which have not occurred with sufficient frequency to be regarded as habits. They are not really habits at all, but because their very occurrence as modes of action involves the possibility of their later development into habits they may be called incipient habits. A child who has never used a typewriter picks out the letters in his name and strikes the keys. It is his first experience with a typewriter and he has succeeded in typing his name. Strictly speaking, we cannot say that the child has now a habit of typing his name. Nevertheless, this initial typing of his name must be regarded as the first step toward his final ability ten years later to type his name by habit. In every act which we perform there is the possibility of habit, yet the patterns which develop are so faint we need not call them habits. Since, however, they partake of the nature of habit we may call each one of our actions which is not habitual an incipient habit.

In a stricter sense, a real habit, one which is more than an incipient habit, cannot be regarded as formed in the personality until the pattern concerned has become so definite that it can be relied on at any given moment as a summonable resource. A child learning to use his fork fumbles and struggles with it, but somehow manages to eat his dinner. The habit of using a fork is still incipient; it is not developed by successful repetition. The adult has such habitual control of his fork that he sometimes forgets that a child must learn to control it. Instantly the power of using a fork may be called on by the personality. It is a habit because it has become so thoroughly ingrained that it operates without thought at the command of the individual. A habit is a definite pattern which may be summoned for action whenever it is needed by the personality.

When such a habit is simple and need not be regarded as part of a series of habits which are mutually independent, it may be called a unitary habit. The use of a fork, or chopsticks, or of a toothbrush may be regarded as such a unitary habit. But these unitary habits are frequently combined into systems of interdependent and interrelated habit responses. The writing of a letter is a complex series of habits intermingled with certain incipient habits: the holding of the pen, the habit involved in the writing of each single letter, the habit of writing some whole words, such as *and*, *the* and *you*, the habit of punctuating, the habit of paragraphing, of indenting and so on. All these are combined into a complex series of habits which are related to one another and may be called the habit of writing. So in the case of reading, playing the piano, driving an automobile or working out a problem in arithmetic. Each of these abilities may be regarded as a system of habits.

Such unitary habits and such systems of habits are but resident memories which have become so specialized that they are subject to a form of recall which is translatable into action. Habits are dynamic memories which have the power of issuing in actions. An experience which has become really vital is the more likely to become habitual. Just as the memories are stronger when the experiences are more significant and richer, so it is with the habits. Experiences which seem real and vital and valuable develop into habits which are fixed and permanent.

A realization of the nature of habit helps us to avoid the common belief that habit formation is based almost entirely upon repetition. Such a conception of habit forming is most unfortunate for those who govern the learning process. It is obvious from our general experience that repetition is an important process in the formation of habits. But the point which many miss is that this repetition is only

successful when colored with meaning for the individual. Only repetition which is suffused with the radiant glow of an initial purpose is ever of real significance in habit formation. Drills which do not have their origin in pupil-recognized needs are almost fruitless as a means to learning. Only inasmuch as the pupil dominates the situation and intends to learn by repetition is repetition a valuable means of learning. College teachers sometimes marvel in almost panicky fashion at the unbelievable deficiencies of students, deficiencies which amount to illiteracy. Students who have done successful work in high school sometimes spell abominably, write incoherently, punctuate inefficiently, talk in incorrect language, and enunciate not at all. The multiplicity of courses and credits with which such students' records are arrayed is appalling. It is obvious that school experiences which were designed to wipe out these illiteracies have been incessant and copious. Yet here they are in our college classes in all the hideousness of vulgarity. What can be the answer? Only the fact that the paces have been gone through, the drills have been executed, the repetitions have been sedulously made but the habits have not been formed. And what is the reason? The fundamental of habit formation has been missing. The pupils did not want to learn. It is the old story of motivation. Unwanted drill, undesired repetition is merely the treadmill of the school. Until pupils covet habits, habits will not be formed.

Distinctly the realm of learning is the realm of incipient habits and of incipient systems of habits. There are habits which pupils must form and habits which they must break. Psychological literature is replete with advice concerning the making and breaking of habits. These descriptions nearly always err by placing too little emphasis upon the personality and too much emphasis upon the habit. In

these days psychologists and school teachers seem to be in a perfect panic in the face of habits. Habit terrorizes the pedagogue both in its making and its breaking. He is ever fearful lest the right habit be not formed, lest the bad one fail to be broken. He approaches the pupil as if he were a bundle of enemy habits instead of a habit-forming personality. There is too much deference paid to habit in the learning process and not enough to the non-habit forming aspects of personality. The thing which counts first of all and most of all in the making and breaking of any habit is the extent to which the self-determining factors of personality function in deciding what course the habit formation shall take.

Psychologists have too often attacked the problems of habits as if habits were on the periphery of personality; sending roots inward to its very heart. They thus tend to give local treatment at the surface and continue to worry about the internal complications. They have treated habit atomistically, superficially and reverentially. They have said, in effect, let me make a man's habits, and I care not who makes his personality. They have thrown the whole psychology of learning into a state of hideous blundering by confusing the process of habit formation with the process of learning.

In contradistinction to any such glorification of habit we must adopt an attitude which puts habit in its true position of subserviency within the personality. Personality is normally a habit-dominating rather than a habit-dominated phenomenon. The conception of the individual as a creature of his habits is on a par with that nihilistic doctrine of the individual as a function of his environment. To hold such conceptions is to regard personality backwards. In reality personality is not an inward-growing phenomenon. Environment does not make man, but man

makes environment; neither does habit make personality, but personality makes habit.

The higher functions of personality which are a functioning part of the personality are non-habit forming. The life force itself is the dominating factor in personality and issuing forth it suffuses all the patterns of personality, and in virtue of its self-directing powers reigns supreme in the realm of habit. A truer conception of personality regards it as a general with innumerable forces at his disposal. Endless are the numbers and vast are the possibilities of this huge battery of habits and habit systems which lie resident within us. Faced with any given task by virtue of his integrating ability, the individual may call to his assistance myriad powers and skills which are the result of his life experience so that as he reaches his maturity he is endowed with regal powers. Certainly, with all the resources of his stupendous habit systems he should be, in a plastic environment, as a bridegroom coming out of his chamber and like a strong man rejoicing to run a race.

THE MECHANISM

It is helpful to regard the human mechanism as one of the resources of the personality. The mechanism is that phenomenon of personality by means of which it makes itself manifest in the material world. It is particularly important to realize that this mechanism is merely one of the resources of personality if we are to avoid the slipshod but common error of regarding the mechanism as the personality. Its very obtrusiveness makes us subject to this temptation. Furthermore, the very function of the mechanism is such as to make it particularly liable to this form of misinterpretation. For the mechanism is the device by means of which the personality comes into contact with the material world. Thus is the balance of observable evidence

within the field of psychology obviously weighed on the material side. We must consequently beware lest we forget this limitation and allow ourselves to be blinded into accepting the mechanism which is a function of personality as if it were the whole.

This practical intermediary between the self-directing I and the environment is so far from being the real and essential individual that it is the one resource of his being which does not seem essential to his fundamental selfhood. The mechanism is the one resource of personality which seems by its very nature temporary. It is entirely possible to conceive of the personality without the mechanism whereas it is utterly impossible to conceive of the mechanism as having any validity without the other contiguous phenomena of personality. All the functions of personality may readily be conceived of as existing in a non-material medium. Without the mechanism, however, the personality cannot conceivably function in this material world.

The term mechanism has been here used in order to avoid, if possible, the separatism involved in the use of the term body, and to avoid the many misconceptions which are associated with the use of the term. If we conceive of the word body as meaning the mechanism we may proceed satisfactorily. If, on the other hand, we conceive of the mechanism as equivalent to the philosophical category known as the body we will be misled. For the mechanism is best thought of as a mere mechanism. Excellent in its perfection, marvelous in its complexity, glorious in its functioning exactitude, it is nevertheless but a mechanism, so adapted that the life stream may use it in living in a personal way in a material world.

It is thus a most fitting and serviceable object for psychological study. We are extremely interested in the

way in which personality may manifest itself in the environment. The study of the mechanism in all its specialized aspects such as the fingers, the nerves and the brain must be of infinite use to those who are interested in personality because of the fundamental identity which exists between this mechanism and all else which emerges via the personality. Just as a photograph of a scene represents that scene without being the scene, so the mechanism represents the personality without being the personality. There is point for point correspondence which amounts to that of perfect identity.

Yet we must never lose sight of the fact that the mechanism is but the mechanism. The serious fault of physiological psychology has been that of isolated interpretation. Travelers lost in a wood stumble blindly on over this obstacle and that, over tree trunks, through bogs and morasses, and over great rocks, counting each obstacle surmounted as a gain. Finally they die of exhaustion, whereas half of their exertion if rightly related to the visible signs of the woods might have saved them. So the physiological psychologist gropes on, unable to see the wood for the trees. This fundamental error the psychologist must from now on avoid. Let him pursue no study, make no investigation, develop no law in the terms of the mechanism which is not duly related to the fuller realities of personality of which the mechanism is but a material resource.

These several processes and attributes of personality which have been discussed in the last two chapters are not the larger fundamental phenomena of personality. They are, however, resources which the personality must call upon to meet its various emergencies. Their very diversity, and the diversity of the several processes of personality previously discussed, is such that one might be led into the error of separatism, of attempting to divorce them from the

action of the total personality. The process of integrating, however, binds them together into a functioning unity so that what the individual does he may do at once, making use of his full battery of processes and possibilities.

CHAPTER XXI

THE X PROCESSES OF THE PERSONALITY

WE APPROACH the discussion of the x processes of the personality with considerable hesitation. For the discussion of any such topic must deal with a subject which has been tabu in certain of the councils of recent psychology. Yet we are forced by our experience of life to recognize fundamental differences in the personality of different individuals which do not seem to be accounted for in terms of those factors of personality more frequently discussed. There appear among us at times great figures whom we call geniuses, individuals who are so remarkably endowed that we are at a loss to explain their actions in terms of everyday psychology. The powers of a Moses, a Shakespeare, a Beethoven, a Wesley, a Michelangelo, a Raphael, or a Gandhi tower beyond those of ordinary mortals to a degree which is astounding. The puny efforts of the testing movement have tempted psychologists to prophesy what they have weakly called "genius." Those who register very high on "intelligence tests" have been labeled individuals of genius. But such a cataloging of those little men who come within the range of our tests is almost childish. There is a flash of fire, a glint of something intangible, a flare of vitality associated with those massive individuals who may rightly be titled "genius" which is beyond the feeble grasp of the earth-bound psychologist.

Nor need we depend upon those far-away individuals called geniuses for evidence of certain factors in personality which are not explainable in terms of our smug formulas. That phenomenon for which we have no proper name, which is lamely called "personality," is commonly

recognized by us all. There is about certain individuals an indefinable something which holds everyone of us in thrall. We go to the theatre to watch the play. The cast is an array of Broadway's superior talent, yet they move across the stage efficiently holding our interest but leaving us unmoved. Quickly a certain actress is seen upon the stage. Our eyes never leave her, we follow her every movement, she fascinates us, and when she is absent from the stage the play seems to become drab by contrast. Or perhaps as college students we pass from classroom to classroom. Here we find a teacher so engrossed in his subject that he seems to forget our presence and is in turn forgotten. Another limply sets forth the finest of ideas to which we barely attend. But some day we fortunately stumble into the classes of a real teacher, one whose vitality and enthusiasm instantly cast a spell upon us. Catching his point of view we are ever with him and when the hour is over we are surprised that it has passed. Such geniuses, such actors, such teachers are men comparatively rare and when we discover them we treasure them.

Psychologists have sometimes attempted in a prosy way to deal with this phenomenon. They have combined in lists those observable and detectable traits which they have regarded as contributory to this characteristic called "personality." They have listed such elements as dress, appearance, enunciation, clarity of thought, good English, and so on *ad infinitum*. Yet as we stand on the street corner and behold an ill-dressed man in broken English rivetting the attention of his little world by vulgar tales of the digestive tract, we wonder at the naivete of the literal-minded analyzer of personality. The great men of the world, the prophets, the seers, the poets and the artists and the teachers are possessed of some quality or characteristic which is absent from the lists of our analyzers. For the sake of defi-

nitiness and clarity it may be well to avoid confusion in the use of the term "personality" by referring to this phenomenon which must be associated with the x factors of personality as the over-phenomenon of personality.

There seems to be associated with every individual of the type which is under discussion a certain special characteristic. This characteristic seems to be a special richness or fullness of life. It is as if the well of the life force were bubbling over and these individuals, unable to contain the flow, pour it forth in prodigality upon a world which is thirsty for life. But what is so baffling to the psychologist is the fact that much as this process of "bubbling over" may be observed, and definite as its observable results seem to be, yet the causes of its superabundance are not to be found in terms of the ordinary concepts and explanations of psychology. To say that these individuals are brighter or more intelligent, or of wider emotional range, or more pleasing in appearance is entirely inadequate. There seems to hang about them an invisible, undetectable emanation analogous to the ultra-rays of light. It is this elusive quality which has been called the over-phenomenon of personality.

It is useless for psychologists in their eagerness to protect their materialistic alliances to protest. The fact that certain of us might prefer to ignore the x factor of personality does not make it any the less real. There are too many things in human behavior which are difficult to understand for us to pretend to know it all. The flabby charge of mysticism will undoubtedly be hurled at those who wish to recognize any unknown quantity. But such a charge is no more warranted in the field of psychology than in that of biology or physics. If the biologist is ready to admit that in his researches he is ultimately forced to recognize an unknown, and if the physicist similarly claims it, are we to charge them with mysticism? If so, well and good; let the

psychologist be a mystic along with them. Far better to be accused of mysticism than to be justly accused of willful and deliberate ignoring of obvious data. But psychologists have drawn back from the study of the x factors of personality. They have sought to annihilate them by proclaiming that they have no place in the realm of psychology. Such pretense is similar to that of a geographer who refuses to place Mount Everest on his map because men have failed to scale it. By refusing to study the x phenomena of psychology some have sought to make out that they do not exist. But their existence is recognized literally by millions of men. Furthermore, they have a legitimate place in the realm of psychology. Having to do with personality and being a recognized essential in any complete concept of personality, they cannot be ruled out of psychology. Those who would continue to deny them may continue to delude themselves into belief in their own omniscience.

Let us pause to consider certain other common manifestations of the over-phenomenon. In our everyday life we recognize people of extraordinary enthusiasms. What is the source of those enthusiasms? How does the individual who manifests them derive them? It has been said by such individuals that when enthusiasm is needed the only thing to do is to reach down into one's own personality and produce it. It is a manifestation of the life force resident in the personality. Certain individuals have unusual powers of calling upon that life force, which must be due to the over-phenomenon.

In our daily life we recognize differences among those we meet which we lack the concepts to explain. A certain poet enters the room and talks to us. There is nothing about her appearance or actions which seems different from that of other people. Yet sensitive people are unusually sensible of her presence as touched with an im-

mortal fire. Again there are individuals who give continually of all that they have. Their flow of giving never seems to cease. They give of their time, their money, their possessions and are continually entertaining and caring for those about them. Others are so concerned with their self-seeking that their privileges are confused with rights and the gifts of others are regarded as attempts to curry favor. The outpouring of life which prompts other choice souls to give must ever be regarded as the result of some invisible factor of the personality. The average clergyman pours forth words in a torrent which falls like a dead blast of sand on the arid deserts of his congregation. Yet occasionally the words of more simple and less endowed individuals carry within them some living force which changes the lives of men. Surely we are not to ignore such acknowledged everyday facts of life. But to explain them we must recognize some over-phenomenon.

It is extraordinarily interesting to note that poets have believed that there is about the personality of children an aura which those who are sensitive to it recognize. The immaterial, invisible, yet sensitive aura seems to be present in all children. It is recognized in Wordsworth's famous lines:

Our birth is but a sleep and a forgetting:
The Soul that rises with us, our life's Star
Hath had elsewhere its setting
And cometh from afar:

Not in entire forgetfulness,
And not in utter nakedness
But trailing clouds of glory do we come
From God, who is our home:
Heaven lies about us in our infancy!
Shades of the prison-house begin to close
Upon the growing boy,

But he beholds the light, and whence it flows,
He sees it in his joy;
The Youth, who daily farther from the east
Must travel, still is Nature's Priest,
And by the vision splendid
Is on his way attended;
At length the Man perceives it die away,
And fade into the light of common day.

This phenomenon referred to by Wordsworth in poetic language has been little discussed, and seems to have been noted by but few. This may be due to the fact that it seems to fade in most individuals as they grow older, and with it seems to depart the individual's sensitivity to the same phenomenon in children. It is notorious that children seem to know almost automatically people who are sympathetic to them. Although this is a matter of frequent comment no explanation of it has been given. Nor is it easy to describe the phenomenon in children. Possibly it might be described as a certain freshness of emanation which endows the individual with a certain fullness of life and a certain sensitiveness which is above the mere sensing powers of the mechanism.

The x processes of the personality seem to partake of the nature of what is called by some the Spirit. Since we have not named or classified them they are particularly difficult to discuss. It is not for psychology at present, however, to so name them. The argument to substantiate them is so theoretical and so lacking in tangible, definite and indisputable evidence with respect to these factors, that psychology cannot now assume that responsibility. It is enough for the present to recognize the presence of certain little known factors, and to present what sketchy material is available which would throw any light on their nature. Thus may psychology be an honest subject. Furthermore,

it may define its limits and its relationships to other departments of thought, as every study should do. In this discussion we see where the border lines of psychology touch those of philosophy, metaphysics and religion. By indicating what is just beyond the border psychology may fulfill its duty toward any general scheme of integrated thought. Too often have the departments of knowledge remained each in its isolated loneliness. What is needed today is the establishment of relationships and interrelationships among the various realms of thought which have been separated from one another in the period of rapid growth of scientific knowledge. Thus may the seas of knowledge be no longer uncharted and mankind may hope for a day when we may discover the fundamental unities which are at the basis of our newly acquired knowledge, a day when men will once more live in a world not too complex for their limited understanding.

PART III

THE PERSONALITY LIVING

CHAPTER XXII

THE PERSONALITY IN ACTION

PERSONALITY IS essentially active and dynamic in its nature. Remove the active mood from personality and only death remains. So the individual is continually going about and doing something. To regard him as a passive or inert specimen is to misunderstand him. Every consideration of psychology should maintain this active mood. Whatever we do and think and say in psychology should never fail to take into account this ever-movingness, this positive quality of being alive and doing.

We need, therefore, to consider the personality in action. Up to the present we have been concerned largely with looking into the personality and considering its structure and total relationships. But we need a further and an integrated view of the operation of the total personality. We need to know under what circumstances and conditions activity is initiated with respect to certain patterns. We need to know how it is carried on as a unified affair. We need to know the general plan of an act, how it is constituted and how it is concluded. This we may attain by a consideration of the personality in action with a view to understanding the structure of an activity.

Reference has already been made to the act and the sub-act. It is particularly important, in the first place, to gain some notion of the interrelationships of the activities of one individual so that we may not be tempted to isolate any single activity from the matrix in which it is inextricably interrelated. The activities of an individual are a veritable tapestry of interwoven relationships. At any given moment he is involved in numerous activities some of

which have been begun at an earlier time and are actually, for the time being in abeyance, and others of which are being carried on at the same time by the individual. Some acts last for years after they have been begun, while others are of but brief duration. At any given moment I may be involved in hundreds of current activities such as reading a novel, sewing on a button, talking over financial problems, breathing, eating an apple, and resting after a long walk. The various activities are not actually separated as they occur in time. We do not begin one activity and finish it before starting another. Activities interlock and interweave with one another as we hurry about the business of the day.

If we are to consider any unified activity of the personality, however, we must consider the activity without regarding its temporal aspects. We must treat it as if it were begun and carried to conclusion without interruption, always keeping in our minds, however, that this is not actually so in everyday life. We will thus avoid error in considering these activities in relation to one another. Disregarding the temporal aspects of activity we may think of activities both in the basic and subsidiary sense. Activities which may be regarded as major find their origin in separate beginnings. A major act would be eating one's dinner, since the individual ceases whatever he is doing and carries on this activity from, as it were, a new beginning. The numerous acts involved in the major act would be such activities as using one's knife, drinking a glass of water, eating one's peas and folding one's napkin. Once the personality has committed itself to a major act a regular series of sub-acts is usually involved. If we think of the total activities of the personality we might think of a series of major acts, each accompanied by numerous sub-acts. But to make our concept like life we must tangle up the series,

mingling acts and sub-acts with one another in a heterogeneous sequence of interdependent activities.

THE ORIGIN OF AN ACTIVITY

A great many misconceptions are due to error in the understanding of the beginning of an activity. We are too prone to forget that personality is continually active. No activity ever begins from a halt or a dead-stop. Personality is ever on the move and everything which is begun is begun, as it were, with an initial push if it is begun at all. Personality is animate. It is suffused by the life force which is ever driving it onward. Whenever an activity is initiated the total personality is theoretically behind it with all its potentialities. The personality itself may enter into that activity with the full battery of its resources if the personality determines to use them. Thus the analogy of a watch beginning to tick when it is wound, or an automobile engine beginning to go when the starter is pressed, is a very fallacious one by which to interpret human activity. The personality never does nothing. The life force is continually and continuously expressing itself in one activity or another so that there are no pauses in living, no real beginnings of activity, only the beginning of a new directional flow of the life force into one activity or another.

At any given moment the self-directing I is ready, by the use of intelligence functioning via its powers of choice, to direct that the life force will issue in this, that or the other activity. Under just what circumstances does the intelligence make its decision? Just when may the life force be regarded as having entered a new pathway which may be called a new activity? If we are to understand what outwardly appears to be a new activity we must determine this true beginning of the new directional movement of the life force. If we can discover this root of the new activity

we may gain a fuller insight into the way in which personality issues in action, for not merely the beginnings but the whole process and conclusion of an activity are colored by the original circumstances under which it is begun.

This beginning of an activity is a matter of recognized and assumed responsibility. The moment the individual recognizes what he regards as a responsibility the intelligence must decide whether or not the personality will assume that responsibility. The moment the personality assumes the responsibility concerned, that moment an activity may be said to have begun. A person goes about the ordinary activities of the house when suddenly the telephone rings. Now the individual may say to himself, "I am busy, it is the maid's duty to answer the telephone," and continue with what he is doing. In such a case he has not begun a new activity as a result of the telephone call. On the other hand, if he says to himself, "There's the telephone, I must answer it," he accepts the responsibility for answering the telephone. At that moment he begins a series of movements which results in his going to the phone, raising the receiver and talking to the person who is calling. The activity we call *answering the telephone* was begun at the point at which the personality accepted responsibility for that particular activity. If or as long as the personality rejected that responsibility by failing to identify it with himself the activity was not instituted. The moment the individual identified the proposed activity with himself and assumed responsibility for it that moment did the activity begin.

X The acceptance of responsibility for an act involves two processes: the first recognition of the responsibility, the second the assumption of responsibility. Before an individual is ready to assume the responsibility for an act he must recognize it as a responsibility. Upon what does this

recognition depend? It depends upon the realization of a certain degree of identity between the individual and the activity concerned. There are certain real or imaginary patterns within the environment which seem to the individual to correspond to patterns within his own personality in a way which demands action. Once the individual admits such an identity he may be said to recognize a responsibility.

When the individual recognizes a responsibility for action this action is intended to resolve a state of strain. This state of strain may be called a need. When the individual recognizes an identity between the patterns of his own personality and those in the environment which involve a state of strain for their unified resolution, he experiences a need. When a person finds himself looking forward to a blossoming of hyacinths for his home in February he recognizes this as a need. Certain patterns within his personality concerned with hyacinths blooming in February are seen as related to imaginary patterns in his environment of some months ahead. The state of strain which exists between these patterns is a need. This need is only to be resolved by action. Shall the individual accept responsibility for meeting this need? If he *recognizes* this as a real need he will *assume* responsibility for the action which will resolve the state of strain and so fulfill the need. If he does so he will have begun a series of acts which involves the buying of bulbs, the planting of them, and the storing of them in his cool cellar until their slow germination is ready to be hastened by the heat into cockades of purple and pink. Finally when they blossom and die the need has been filled, the responsibility met, the act of growing hyacinths has been completed.

It is useful to distinguish two kinds of needs. These may be referred to as *personal needs* and *social needs*. In the

case of personal needs the resolution of the state of strain which is the need is necessary for the good of the personality itself. In the case of social needs the resolution of the state of strain is desirable for the sake of other persons. The individual who needs his dinner eats it for his own sake. The person who does without it to take a sick friend to the hospital meets another need which may be regarded as social. In the one case the resolution of the strain is essential for the personality which enters into the action; in the other case the resolution of the strain is essential to some other individual. A personal need is met by a selfish act and a social one by an unselfish act.

Physiological psychology has too often tended to make us feel that all needs were of the personal type. Analyzing activity in terms of the organism this form of thinking fell once more into its typical error of regarding the mechanism as the total personality. Not content with regarding such personal needs as those of eating and drinking as mechanism-motivated needs, it proceeded to describe social needs on the same basis. This results in absurd contradictions. Take the case of the man who does without his dinner to take his friend to the hospital. If the mechanistic conception were sound the man concerned would get his dinner and let his friend look after his own troubles! But the mechanists do not realize this. They attempt an elaborate explanation. To them the social need is lost and becomes but a more subtle form of personal need. The functioning of the mechanism even in taking the friend to the hospital is also supposed to be mechanism-motivated. A state of affairs in the mechanism makes the personality organically prefer to take the friend to the hospital rather than to eat dinner! Such is the determined attempt of the mechanists to interpret every act of personality in terms of gravel and mud. Their error is that of ruling out the

further reaches of personality. In the case in point the mechanism would "prefer" to eat dinner. But the self-directing powers of personality, functioning via the intelligence, reject the personal need for the social one in virtue of the discriminating power of choice. Once more the organism does not reign, but the life stream issues via the total manifestations of personality.

Before the individual assumes responsibility a need must not merely be present but recognized. The most pressing personal and social needs may often go unrecognized. Consider the case of a farm hand seriously ill yet unwilling to take any cure. Suffering from an infection of the head, his eyesight failed. His employer urged him to go to the hospital for relief and cure which the doctors promised. Refusing to go, he allowed the infection to spread until it caused complete blindness and ultimately death. Here was a case in which a gross personal need was present, involving the preservation of life itself. Yet the need was not recognized, the responsibility was thus not assumed, and the activity which meant life itself was never begun. Equal distribution of knowledge is more important than equal distribution of wealth.

Not only must needs be recognized before action can follow, but certain needs must be chosen from among many as those for the meeting of which responsibility is accepted. There may be at any given time a number of strains which indicate to the person concerned that there are many acts for which he may accept responsibility. He says, "I am so busy I don't know what to do." He means that he recognizes so many needs that he does not know which to choose. He cannot meet them all; he must select. This selection following upon recognition depends upon the power of choice functioning via the intelligence.

The assumption of responsibility may be either half-

hearted or thoroughgoing. Consequently an act may be vigorous or dilatory. It is very important to recognize this variation in the way in which the person may accept responsibility for an act, for this degree of accepted responsibility covers the whole of the succeeding act, and makes it an affair of the same nature. On certain occasions and under certain circumstances the individual accepts responsibility for activities with very great definiteness and deliberateness. This is likely to be so in the case of activities arising from personal needs. When needs are recognized as personal, such as keeping one's own house clean or keeping one's personal accounts, the individual tends to accept responsibility fully and directly. In the case of needs which are largely social, such as looking after someone else's house, or keeping somebody else's accounts, individuals tend to accept responsibility less willingly and less wholeheartedly. The result is that servants and helpers seldom do the work of others as well as they would do the same work for themselves. Fundamentally the difficulty lies in the fact that they do not accept the responsibility for what they do fully or completely.

The tendency of recent psychology has been to minimize the importance of the personal origins of activity. In line with the general tendency toward mechanistic interpretations writers have tended to lay less emphasis on the origin of the activity and more on the various steps in its performance. We must correct this point of view and be doubly clear on the vital alliances of any activity with the full functioning powers of personality. If we are to understand and deal with the springs of action we must deal with them at the source. We must realize the deep and fundamental significance of accepted responsibility as the source and origin of activities.

If, for example, we wish children in school to do their

work wholeheartedly we must insure their acceptance of responsibility for such work. Teachers who watch their pupils puttering and dabbling through their work have failed to understand that they should encourage responsibility instead of forcing performance.

PURPOSING AND ACTIVITY

Once the individual accepts responsibility for an act that responsibility issues in a purpose. This is necessarily so, for since the acceptance of responsibility depends upon the recognition of a need, and since a need is a strain existing between patterns existing in the personality and patterns in the environment, in order to meet the need the individual must make a change in the environment. Purposing has already been defined as a function of the intelligence which comes into operation whenever the individual determines to make some change in the environment. When an individual accepts responsibility for an activity the activity must be begun by the issuing of a purpose. My fountain pen runs out of ink; I realize that it needs to be filled, and that I must fill it. The moment I accept responsibility for the filling the activity has been begun. But acceptance of the responsibility is accompanied or followed by the purpose. I say I purpose to, or I will fill the pen. Once having purposed I tend to live up to the purpose.

CARRYING OUT AN ACTIVITY

Once the purpose has been issued the person may at any time begin to carry out the activity which has been purposed. The carrying out of an activity is a shuttle-like process, psychologically speaking, of planning, doing, and checking. In a simple activity such as opening the door we may think that we first plan, then do, and afterward check.

In most cases, however, the planning, doing, and checking are in a constant state of movement, each referring back to the original responsibility. If I plan to write an article on some educational topic I first realize the need for the article, accept responsibility for writing it, purpose to write it, and then begin to carry out the writing. I first jot a few sentences on a piece of paper as a rough plan, then begin the first paragraph. As I proceed my paragraphs follow an unexpected order, the original plan is changed, I modify it and finish the article; then going over it once more I revise and alter words, sentences and paragraphs. This is all a shuttle-like process. The planning and the writing and the checking all go on contemporaneously, each being governed by the original responsibility, need and purpose. The planning refers back to the need, the doing itself refers back to the plan, and the checking refers the result back to the need once more. In carrying out an act it is the original responsibility which makes the whole cohere into a unified activity. To the carrying out of any activity the whole of the resources of personality may be bent. Whether one must go for a swim, set up a machine, write a story, or paint a picture, the full powers of the personality are at the disposal of the purposing individual. He may not need all those powers, in fact he may seem never to need all those powers in the executing of any single act. Swimming demands little imagination and painting a picture little muscular strength. Nevertheless, all of the individual's hidden powers are available should they by any chance be needed. In virtue of its self-directing powers the I may summon to any task the aid of the mechanism, of the imagination, of purposing or thinking, of the emotions, skills and habits and instinctive drives, of the stupendous driving force and the illimitably innumerable patterns of the personality, toward the completion of the act which has

been begun. The acting personality may be regarded as the most significant and remarkable of all psychological phenomena.

We are in great need of a unified conception of the personality as an active and unitary phenomenon. In this concept of the single total personality the realm of psychology may find its integration. If we continue to cut up the field of psychology into sections or parts we will defeat our own need. If we persist in regarding psychology as the study of the mind and then proceed to treat it as if it were the study of the body, if we say psychology and refuse to live psychology, if we insist on maintaining all our old classifications and divisions and separatisms, our confusion will remain forever with us. If we are to move on to clearer notions of human activity we must never lose sight of the fundamental of psychology, personality in action.

CHAPTER XXIII

THE PERSONALITY LEARNING

LEARNING EMERGES out of acting. Every act is an act of learning.¹ This fact has the greatest significance in the understanding of learning and teaching. There has been a common tendency to regard learning as a separate and special process. It has been thought that there were separate and special acts of learning, acts into which the learners entered not for themselves but as a subterfuge to secure learning. Furthermore, this theory of learning has found its fulfillment in practice. Schools all over the world have been widely organized as places specially set apart for learning. They were intended to house the special acts which were definitely organized so that the pupil might learn. The world was canvassed for materials which could be compressed into these special acts. Learning was made a thing apart. Temples were dedicated to learning, but they became the shrines of a dead god. Pupils were expected to retire from the world of seeing, touching, doing, and making, into a monastic seclusion of our schools and colleges. There they were not to live and to do those natural and real things in which the world was engaged. They were to peruse those separated acts which were dedicated to learning. They were not to explore the world but they were to specialize in a separated geography; they were not to blow parachutes of milkweed or watch in the thicket for birds, but they were to save time by a concentrated study of an essay on birds or flowers. They were not to struggle with the building of a bird bath or the damming of a stream, but they were to take a short cut to the matching

¹ In routine acts, of course, the learning value is at its minimum.

of quantities by imaginary problems in arithmetic. Thus did the learning process become enamored of itself. Learning for learning's sake became the mode. The school became forgetful of the fact that in every thought, in every deed, in every glance, in every act, we live and learn. Learning is coincidental with living.

We should restore to the learner the fullness of an act. Learning must no longer be separated. The process of learning must be that of living the good life. It is only in living the good life that we learn to be and to do good. Whatever the young people or the old people of the world are doing today they have learned to do by a series of acts in which they have participated. Their personalities have grown into these modes of action by a series of acts. Whether these acts have been in the home, in the community, in or out of school, their inexorable record is kept in the becoming personality.

Teachers and schools dare not neglect these facts. Only if our schools become a heaven on earth may they usher in a millennium. There must come a day for children when the fullness of their being must shake the walls of the school. There must be a revival of the fullness of living. There must come a school in which the personality of children finds its fullest and most complete outlet in the unified being and doing of all that is right and good.

THE REAL ACT

The acting personality must become the ideal of school life. The unified personality must become the actor and the doer. Into whatever experience pupils enter they must enter with their total personality. We have too much neglected the whole activity of the individual. This has been a partial result of the incessant separatism of our psychological thinking. Schools have trained children in thinking

as if thinking were a separate process of the personality. Exercises in thinking have been devised which have forgotten the thinking person, who thinks not with his "mind" but with his fingers, his heart, his eyes, his whole being, and who only thinks when his total personality is enlisted in the process. Vast seas of mathematics and of language exercises have been devised to treat the "reason" as one might cultivate the soil about flowers. Yet there is no "reason" in man which is separated from the rings on his fingers and the bells on his toes. Teachers have given their children a few formal exercises of arm-raising and hip-bending in the feeble hope that their "bodies" might benefit thereby, while their "minds" wandered in a tangle of disintegrated evanescence. Yet without the acting and learning total personality such a show is as useful as pulling puppets by strings. How much more beautiful and real and valuable the graceful movements of a troupe of Japanese acrobats with bodies tuned to a perfect grace. By a coördination of all the resources of personality they may charm the onlooker by the very fullness of their own participation. It is by such a full and complete devotion of the personality to the task in hand that children may learn to call upon all their resources to the solution of the problems which they face. The real act is the one in which the personality engages fully and completely from beginning to end. It is by the real act that the pupil learns.

THE COMPLETE ACT AND THE COMPLETE SERIES OF ACTS

The best act of learning is the complete act. The complete act is one on which the total personality engages completely. There are several aspects of the complete act which are particularly significant in the guidance of learning. In the first place is the fundamental nature of the self-determining process of personality. Only to the extent to

which the self-determining powers of the individual are enlisted in the carrying out of an act does that act secure learning. We have been too prone to seek the drive of learning in other places. Too much emphasis has been laid by some on the intrinsic interest of subject matter. Others have erred in overemphasizing the dynamic character of the teaching personality. Still others have laid undue emphasis on the process and method of teaching. If learning is to go on thoroughly and economically the basic need is the enlistment upon the task in hand of the self-determining power of the personality of the learner. If we wish an individual to act or learn for good or for ill, we must secure the thorough enlistment of the personality for the act concerned. The individual who commits himself to an act of learning does not need to be coddled and coaxed. He has set for himself a goal, and despite the teacher he will reach that goal in the terms which his own personality determines. The essence of teaching is that of enlisting the personality of the learner upon a good act and providing him with the time and the materials necessary to enable him to carry it out.

Herein lies the importance of the need in learning. The individual convicted of a need is ready to throw his personality into the breach. Thus if teachers can discover and reveal needs they have become a power in the life of their pupils. If having revealed to pupils a need they can secure from the pupils their self-determined intention to meet that need, they have secured the basis of learning. If they can further secure from the pupil the expression of accepted responsibility for his self-determined act, they can leave him alone to learn for himself. If he wanders from his task he may be reminded of the goal which he himself has set in accepting responsibility for his own act. If he needs help the teacher is ready and strong to supply it.

The child who recognizes that he should write a song for the class play and promises to do so will summon all his powers of personality and carry the task through in the appointed time. So teaching becomes the revealing of a need, the enlisting of the learner's personality upon the fulfillment of that need, securing his acceptance of a definite responsibility for the act involved, providing materials and opportunity for its completion, helping in the difficult places and checking the learner by his own standard of accepted responsibility. But in the enlisting of the learner's personality upon an act of learning lies the functional core of teaching. Thus the key of the teaching process is discovered in the origin of an act. The teacher must always remember personality. When the learning act is completed the pupil has learned the totality of everything which he has done with assent.

It is only by a series of various and widely different acts that a rounded development of personality occurs. The various acts of the individual such as singing a song, preparing a meal, or caring for a sick friend call upon the resources of personality in widely differing fashion. In each act the processes of personality are compounded in widely differing ways. The resident patterns arise and change in ever new array. Thus it is that personality for its full development needs widely differing experiences. There must be a fullness and richness of opportunity which provides for a wide range of activities which gives fullest chance for the many kinds of desirable acts of learning.

THE MAKING AND REMAKING OF PERSONALITY

Education is the making and remaking of personality. The purpose of the teacher is to administer the guidance of those separate acts which determine the personality of the learner. Thus we secure a thorough and vital concept

of the process of teaching. By an infinite series of acts to each of which he has given assent and which he has carried to completion, the learner has become what he is. It is for the teacher to know him as his acting self, and to guide him as an acting personality. He is what he has done. What he has done with assent he has learned. What he has learned he has become. He is an infinite accretion of his own acts. The chief problem of the teacher is to make and remake the personality of the pupil. Make it in terms of new acts of growth, and remake it in terms of newer needs and better goals. Whatever promotes the process of making and remaking of better personality is good teaching. Whatever hinders or seems not to promote this process is wasteful or useless. Such a conception of teaching must work drastic reforms in current education. In the first place it sets the fundamentals of education firmly and soundly in the home and not in the school. Our schools have accepted too much responsibility for the character and personality of children. The teacher who realizes that his work is that of making personality will realize how hopeless that task can be unless the children under his care come from homes which have already made them desirable personalities.

Such is the influence of the home that since teachers cannot remove children from poor homes and undesirable backgrounds they must renounce full responsibility for the character of children in their charge. They may assume the responsibility of building on what character is given them and of not breaking down, as some teachers do, what has been built up in the home and community. But to pretend that against the insuperable governing force of the acting and learning of children at home and in the community character may still be restored in school is totally wrong. The public schools must renounce with a loud voice total responsibility for the character of their pupils. Their

acceptance of this responsibility has produced an inertia in home and church which is ruining millions of lives. Let us hold parents responsible, if necessary, even by law.

The true significance of the home is clear in the many cases in which children must be removed from bad homes before they can learn. In one specific case, a real teacher was able to work a transformation in the pupil. To this teacher education was not a factory process. She was one of those rare individuals to whom teaching actually was the remaking of personality. Her method of dealing with Raymond, aged nine, actually resulted in saving his life. Since the boy developed into a normal child his case provides an unusual example of the process of making personality.

When Raymond was taken from the private school in which he had been placed and given in desperation to Mrs. — he was pronounced by the principal of that school as hopelessly subnormal. He was drooling at the mouth and fast sinking into a state of torpor from which he would, due to a waning vitality and continual colds, inevitably have lost his grasp on life. Mrs. —, being one of the very few teachers who understand the meaning of the building of personality, took him under her care. In the earlier part of their companionship it was necessary to supervise every tiny act of this child as carefully as if he were a baby. Kindness and proper care soon built up sufficient reliance in the child to enable him to assent to the guided acts into which he was led. It was now that the background influence of the home became obvious. In the earliest days of training in which the child lived all the time with his teacher he was sent home for week-ends to his family, a middle-class family of money and of a *gauche* and commonplace standard. It soon became obvious that even this temporary return to his old environment so completely vitiated the gain of the week that it had to be discontinued.

Constant care soon began to build an equilibrium within the personality of Raymond which was such that his whole personality tone began to improve. The proper governing of every act by a wise teacher soon produced an improvement in health and in confidence and in all the desirable healthy reactions of personality which formed one vast coöperating web. It was as if the very internal structure of the boy's personality were healing by the building of a new tissue of personality. Just as a wound heals when the personality meets desirable conditions for healing, so the growing series of good acts knit into an integumented reality of new personality. The child knew a new strength, a new joy, a new life. His marks of inferiority and of inability disappeared. He saw himself as a person in the world. Gradually by patient care and supervision the stamp of inferiority disappeared. The child mingled with others of his kind. He caught up with his losses. Today after four years of the making and remaking of his personality by a skillful teacher he is a normal child. For this case the author vouches with his own word, for he knows both teacher and pupil.

It is some such process as this which every teacher must use with every pupil. Knowing her pupil from the activities in which he engages the teacher must see him as he is. He is selfish. He must understand the need for acts of unselfishness and enter into them. He is arrogant. He must himself be helped to analyze his arrogance and to imagine new ways of acting which are gentle and kind. Then he must live out those acts of which he approves. He is timid. He must vision acts of strength and follow them.

Frankie was a boy of nine in a fifth grade. His home background was that of an underprivileged child. He was one of two such children in the group of twenty-five from better homes. Frankie felt this inferiority. He looked about

him and saw others as mightier than himself. But soon the teacher knew this weakness, for it was revealed in his timidity and slowness. Realizing its cause she led Frankie's personality in the direction of bigger things, things by which he might be established in the eyes not of men perhaps but of children. A great piece of scenery was needed for a play. It must, said the children, show a Maypole before a blue sky. To the lot of Frankie and Julian, also timid, fell the making of this vast thing. With a huge sheet of paper which they fastened on the wall by tapes, and with poster paints they set to work. Soon they caught glimpses of new powers within themselves. Their work was good. The other children aided it. The teacher knew that it was good. She saw that those who came to visit knew that it was the work of Frankie and Julian, and they were duly known. They had become a force in the world. Their inferiority began to disappear, and as the days went by they came to be two happy normal children able to rely on their own powers and to use their personal resources in the normal problems of daily life. Thus does the teacher who makes personality provide and encourage the healing act at the time when it is valuable.

The process of making personality is one of enlisting pupils upon activities which supplement their own personalities. To conceive of teaching as the applying of knowledges or facts or ideas in uniform fashion to a group of children is to destroy any real notion of learning. Children do not need a fixed pabulum of prescribed acts. Each child, as each day goes by, needs some new experience to develop and build his growing personality. It is for the teacher who knows him to meet that growing need. By helping him to determine on the wholesome act, the one which rounds and fills out this learning child, the teacher is teaching. He is making the personality of his pupil.

It is learning which gives meaning to life itself. Life is learning. Lost in the kaleidoscopic chaos of acting and doing many an individual has found life purposeless. In estimating his puny accomplishments, or in overestimating them, many an individual has called his successes and failures equally vain. And vain indeed they would be if it were not for the gains of learning. As we act we learn, and as we learn we become. It is in this becoming process which is the result of learning that men may discover the meaning of life. Just as personality is not without beginning, it cannot be without end. Arising from the life force it becomes a distinct and separate something which, from its very nature, cannot pass away. Life is a process with both origin and goal. Learning is a process which gives significance to life itself. The personality lives and acts in order that it may learn and become. The purpose of life is learning.

Yet what is the goal of life? In the process of living we become as we learn. According to what goals of learning we accept, so we grow. Finding its origin in personality every act reflects its goal. As we assent to the goals of life so we become. Thus it is that the learner must set his goals, and in setting his goals he sets the larger goal of life itself. It is only by an understanding of learning that we understand the meaning of life. It is only in the light of that understanding that we may clearly set our life's goal. Let us then say to every learning personality, "Choose you this day whom ye will serve."

PART IV

TODAY AND TOMORROW IN PSYCHOLOGY

CHAPTER XXIV

HARMONIZING THE VARIOUS SCHOOLS OF PSYCHOLOGY

THE CONSIDERATION of personality as a unified phenomenon makes possible the relating and integrating of the copious contributions of the various schools of psychology. Unwittingly each has been studying personality from a limited point of view, and each has beheld much that is interesting and valuable. The gains of each and every school must be conserved in one unified psychology. The psychology of purpose or purposivism has much to contribute to our understanding of the way personality is related to group living, the introspectionists have revealed much that is practical concerning human conduct, the physiological psychologists have thrown a flood of light upon the problems of learning and acting, the Gestalt school has supplemented the work of the physiological psychologists, while the analysts, led by Freud, have supplemented the work of the others by much practical observation of the conditions under which we live. Nothing could be more false to any genuine attempt to gain a full and rounded notion of personality than to reject the findings of any of these schools. There is in each of them much that is inadequate as a full or complete interpretation of personality. There is even much that seems to make certain points of view fundamentally or seriously incompatible with others. Yet there is none which, if interpreted in terms of personality, has not made contributions which are indispensable. If the work of these schools can be carried on no longer in isolation but in related fashion, psychology will expand and flourish in this century as it has never flourished before.

PURPOSIVISM

The purposivistic theories of McDougall have been advanced by him in the hope that they might, to some extent, correct the ultra-mechanistic tendencies of recent psychology. In contradistinction to the mechanistic psychologists who attempt to reduce behavior to a mere organic reaction to environment, the purposivist recognizes a psychological process which originates in the individual. It is maintained that the individual is a goal-seeking individual. That in the psychological processes which he manifests there is something more than mere reaction to a dominating environment. That the individual himself contributes to the process of his own being and doing by the process of purposing, involving something in the nature of foresight or pre-determination of conduct. Accordingly the psychological processes are teleological rather than merely mechanistic.

This is thoroughly in harmony with the nature of personality as set forth in these pages, but it is far from embracing the total point of view here set forth. It is a true though partial corrective to the extremisms of mechanistic psychology. It helps to avoid that strange and ill-supported point of view which makes man a creature of mere chemical and physical reactions to the environment. It finds the source of action not in matter but in the living force which suffuses the mechanism.

PSYCHOLOGY PHILOSOPHICAL AS WELL AS
SCIENTIFIC IN ITS IMPLICATIONS

Such views are particularly anathema to those psychologists who are suffering under the delusion that the psychology which they adhere to is scientific and not philosophical. This desire to conceive of psychology as a natural

science has become almost a fetish with certain present-day writers. It is Woodworth's opinion, for instance, that psychology has, after a hard struggle, achieved the right to be unphilosophical. Furthermore, that psychologists should vigilantly maintain their freedom in this direction. To this we might answer, "By all means, if it is possible to be unphilosophical." When we really face the issue, however, it is perfectly obvious that we can never for one moment be psychological without at the same time being philosophical. The attitude which regards philosophy and science as two separate categories is an example of shallow thinking.

What is the meaning of being scientific? A pure science is a branch of human knowledge or investigation which concerns itself with objective, real, or material phenomena. The norm of reference used by the natural scientist is material or objective reality. He uses the material phenomenon as his criterion of truth. What is objectively observable is the realm of scientific investigation. That which corresponds to material manifestations is to the scientist truth. All these things he regards as in contradistinction to those ideas and notions which are not the result of an observed and controlled check-up with objective phenomena. Thus he may regard as unscientific those theories, those speculations, those guesses, those imaginings which cannot be proved by any array of material evidence. To him the philosophical is the unscientific and the scientific is the unphilosophical.

But such a conclusion is not warranted in the light of facts. No scientist should ever forget that there is no objective phenomenon, no material manifestation which can be apprehended except via the psychological processes of the investigator. In scientific thinking, unexpressed or expressed, oral or written, there is no such thing as a pure objective phenomenon. No scientist, no matter how lofty

his notions of scientific accuracy, or how deliberate his efforts to rule out the subjective from his conclusions, is for one moment free from his own subjectivism. He is in the final analysis an interpreting individual. All the previous experiences of his personality have prejudiced him and predisposed him to such an extent that he never escapes the subjective, the personal and the philosophical. Science is merely philosophy which is governed by the ideal of the maximum of objectivism. While we may say that philosophy may be unscientific because it lacks the objective ideal, yet we may never say that science is unphilosophical. We must face the inescapable fact that science is a form of philosophy.

Why then this horror of the scientist, who will not admit that he is a philosopher, for the philosopher who is only too eager to be scientific when possible? What particular virtue is there in being scientific and refusing to be philosophical? What possible virtue can there be in limiting our horizon to what can be objectively proved in a world which demands almost every hour of our life that we act upon knowledge which is at best partial and theoretical? To wait for proof before action is to be petrified.

We are in need today of psychologists who are intensely scientific, men who are ever eager to discover by objective checking as much scientific truth as they can. Yet we need men who will do far more than this. We need men who do not hesitate to help us solve our problems by those approximations to truth which are based on partial data in the absence of complete sets of data. We are in need of psychologists who will cease from an unholy striving to be "scientific" in a sense in which no psychologist can ever be really "scientific." We need psychologists who are not philosophers *sub rosa*, but scientific philosophers open and confessed.

PURPOSIVISM CRITICIZED

The chief criticism which may be leveled against purposivism is its inadequacy. It does not strike back deeply enough into the functioning depths of personality. Laboring under the general conception that psychology is concerned with processes which are mental rather than personal in a more complete sense, purposivism has failed to regard activity as a phenomenon of the total personality. It appears to be somewhat half-hearted and apologetic in its basic assumptions. It veils its unorthodoxy in terms which are tactful but not sufficiently forceful or clear. It tends to seize on the purpose as a fundamental whereas the purposing of the individual is but one of the processes of his total personality of which there are many others equally or even more fundamental in their nature. It fails to justify itself in an attempt to stand alone, and does not successfully establish its relationships with the contributions of other schools.

EXPERIENTIAL PSYCHOLOGY

Another group of psychologists who are little concerned with the study of the mechanism may be called the experiential psychologists. The experientialists are not concerned with the mechanism but entirely with the subjective experiencing of the individual. Personality is regarded as an experiencing phenomenon, and attempts are made to study the experiences which the individual goes through. Experience is regarded as a subjective phenomenon. It is concerned with what the individual himself lives through, not what some other individual sees him do. It is not concerned with objective performance. It attempts to regard personality not as it is seen by others, but as personality knows and recognizes itself. It attempts to apprehend the outward-looking view of personality itself rather than to be

content with the external seeming which appears to constitute the activities of others as we observe them from without. It seeks to explore the inner mysteries and to understand the arcana of consciousness.

The earlier experiential psychologists were concerned with sensations and how they appear to the perceiving individual. How do the objective realities of the physical world appear to the experiencing personality? The objective, material manifestations of the environment are not just objective material things to the experiencing individual. The personality subjects them to a certain process of perceiving. Light is not mere physical light to the individual but light which is visually apprehended. Similarly sound is auditory sound, and material objects are interpreted via the sense of touch. The psychologist with the point of view under discussion was not concerned with objects as they are but with objects as they appear to the apprehending individual. He was thus concerned with basic sensations. So for some time the search of the psychologist was an attempt to isolate what might be called the basis of sensation. By exploring the skin psychologists were able to discover spots sensitive to special stimuli. It was concluded that the elementary data of skin sensation were warmth, cold, pain, and pressure. Similarly taste was found to be based upon sensations which the individual calls sweet, sour, bitter, and salt.

It will be clear that investigations of this nature depend upon the method of introspection, and this is the method which has been pursued by the experiential psychologists. With all the limitations which the method of introspection may have, yet it is the only method by which any attempt can be made to discover psychological knowledge by the process of looking from within the personality outward. If the psychologist cannot take up his station within the

personality and study psychological phenomena from that inner point of vantage, he can do the next best thing, which is to rely on the powers of introspection. To this method this group of psychologists turned with considerable definiteness.

The first efforts of introspection were naturally those of the psychologist himself. Looking within his own personality by virtue of his self-regarding power he reported what he seemed to experience. This is a very ancient method and is only part of the introspective technique. Wundt and his followers made considerable advance by attempting to take advantage of the introspection of others. Trained introspectionists were presented with certain stimuli and requested to give reports of the way in which the stimuli were realized by them. This has been called the method of impressions, for impressions were given to the introspecting individuals and a study was made of their reports upon these definitely arranged impressions. Various individuals were given a series of weights different in certain succession and asked to report their experience.

The work of Müller and Titchener carried the use of introspection still further and concerned itself with the study of thinking. Studying the reports of individuals upon the way in which certain active experiences appeared to them, they discovered the importance of readiness, adjustment or set as a preparation for action. The individuals reporting indicated that in advance of any acts such as playing the piano there was a condition of readiness for that act which preceded the actual stimulus which set the activity in motion. Further investigations led to belief in what has been called imageless thought. Subjects asked to report their experiences in solving problems were unable to report any series of images such as had been assumed as the materials of thought. They reported that the answer

to the problem "just came" and they could detect no series of images which they had experienced in the process of reaching the solution. The investigators were led to the conclusion that thought does not inevitably go on in terms of images, but thought is often imageless thought.

Such is the nature of the investigations carried on by the experientialists. Concerned for the most part with phenomena of the world outside personality, yet they did not wish to deal with it except via the medium of the personality. The realm of physics was not their realm, although from their complex apparatus and their experiments, which so often involved physical entities, it might have appeared so. Although both physics and psychology were concerned with sense data obtained by human observers, the physicists were concerned with these data objectively, while the psychologists were concerned with them subjectively. To physics the data were the means of understanding the material world. To psychology they were interpreted with reference to human experience. No matter how objective the data used, it was not the data which the psychologists were concerned with but the significance and meaning of those data to the apprehending personality.

CRITICISM OF EXPERIENTIALISM

Experiential psychology has contributed a great deal to our understanding and appreciation of human personality. Frankly subjective in its implications, it has yet remained very faithful to the scientific ideal. It has attempted to make objective reference the basis of its subjective interpretations. Its work in this direction is far from completed. Investigations based on introspective study of impressions have only just begun, and doubtless further studies along this line will vastly increase our knowledge of personality.

The most unfortunate aspect of experiential psychol-

ogy has been its tendency to reinforce the notion that psychology is a study of the mind. To many the mind rather than the personality has been regarded as the experiencing entity. The fact that experiencing must be interpreted and recorded in the abstract has tempted many to confuse it with the abstract known as mind. Too often mind has been regarded as the experiencing I. Thus the aspects of personality which may be abstractly apprehended have been regarded as mind. Mind has been confused with consciousness and consciousness with experience. In reality each of these aspects of personality is but an inseparable aspect of the unitary phenomenon of personality.

If experiential psychology can shake off this fallacious tendency to confuse its evidence with its object, we can look forward to even fuller and richer contributions in this direction. Nor are these hopes to be fulfilled merely by the extension and completion of further work of the type which these investigators have been carrying on hitherto. If this type of investigation can branch out and establish its relationships with other aspects of personality more clearly and fully, then these relationships themselves will become a new addition to their program which will result in a fresh and much needed illumination of the whole realm of psychology.

PHYSIOLOGICAL PSYCHOLOGY

Some of the most significant advances of modern psychology have been made by the group of individuals who may be referred to as the physiological psychologists. Imbued with the scientific spirit they have carried on investigations in the field of physiology and applied their findings to the field of psychology. Just as the experientialists have regarded physical data and given them a psychological interpretation, the physiological psychologists have regarded

physiological data and given them a psychological interpretation. There is, however, this difference: While the experimentalists have clearly differentiated their physics from their psychology and have attempted to interpret physics psychologically, the physiological psychologists have, in their most extreme moments, almost denied the very existence of the subjective and have attempted to reduce psychological to mere physiological phenomena.

a. *Animal Psychology*

In recent years scientific investigators have turned their attention to a study of the reactions of the physiological mechanism. Perhaps the most prominent among these is the Russian investigator Pavlov. Pavlov does not regard himself as a psychologist. In fact he seems to feel that notions of psychology current at the time when he did his most spectacular work were an actual impediment to the understanding of his results. But whether or not Pavlov avoided psychological interpretations, psychologists have turned to the approach which he has opened up with great eagerness.

Pavlov's work with what he called reflexes and conditioned reflexes is too well known to be described here. He discovered that the salivary reflex of the dog, stimulated by food, could be so conditioned by having it occur at the same time as a sound that finally the sound could evoke the secretion of saliva without the food. Other experiments threw new light on behavior of another type known as *inhibition*. If the sound is repeated without the original unconditioned stimulus of food the response is finally withheld by the process of inhibition, and the salivary reflex does not occur. This work of Pavlov has been a remarkable stimulus to many psychologists and numerous attempts have been made to explain it in psychological terms. Some

calling themselves psychologists have attempted to explain psychology out of existence in terms of the conditioned reflex.

Another very important contribution to an understanding of reactions of the animal mechanism has been made by Thorndike. Placing a cat in a cage which could be opened by turning a button Thorndike observed the cat's reactions. After numerous random movements the cat turned the button, seemingly by chance, and freed itself to secure the waiting food. Experiments of this kind enabled this investigator to work out the most thoroughgoing explanation of animal conduct which has hereto been available. Regarding the situation of being in a box with food outside as the stimulus one may regard the response as the trial-and-error procedure of random pawing and scratching. The psychological connection between the two may be thought of as the nerve or neurone chain from the cat's end organs into the brain and out again. Such an explanation is an admirable description of what happens in an animal reaction. By its elaboration and amplification a description of all animal behavior may be made in a most satisfactory manner.

But the moment the findings of animal psychology are taken over into the field of human behavior complications arise. The physiological psychologists have attempted to give a complete description of the total phenomena of personality in terms of the animal reactions as described by Pavlov and Thorndike. They have attempted to impose these findings of animal psychology upon the psychology of human personality. They have attempted to reduce all the reactions of personality to the atomistic terms of mechanistic animal reactions. They have thus sought to make psychology but an epi-phenomenon of physiology.

In so doing they have done great violence to the nature

of personality. They have identified animality and personality, a procedure which every thinking individual must realize is absurd. The conceptions of animality and personality need to be kept as distinct as our experience of the two phenomena is distinct. To regard human beings as nothing but more complex animals—a perfectly pleasant and acceptable notion if true—does the greatest violence to our simple powers of observation. Animals are environment-directed organisms. Persons are environment-directing organisms. The lion and the elephant and the dog have lived from time immemorial in ways which are unchanging. Never could we conceive of the monkey remaking the forest or the fish refurnishing the pond. Mankind, on the contrary, as we pass from country to country today, or as we pass from century to century through history, has lived in many differing environments which he has altered to suit himself. In virtue of his higher powers, those of reasoning, complex thinking, talking, purposing and so on, man expresses a quality which is entirely lacking in animality and which can never be explained in terms of animal reactions. Yet the physiological psychologists have made just such an attempt, and the result of such tendencies has done untold damage in the perversion of school education and has contributed as much to the prevalence of crime in the United States as any breakdown in police supervision has ever done.

This tendency to explain the higher or superior processes in terms of the lower is as pernicious a perversion of the nature of personality as psychology has ever been guilty of. One writer points out that in studying a business organization we should not base our opinions on the word of the office boys and the stenographers. Otherwise we may see the directors and managers as mere conveniences used by the office boy when he needs their directions. Similarly we should avoid interpreting personality in mere terms of

mechanism. Personality may frequently elect to pass over its reactions to the control of the mechanism. Many things which we do may follow the pattern of animal reactions up to a certain point. When we pass that point, however, we have the total personality to reckon with. To conceive of personality as its mechanism is the most narrow view of the basic phenomenon of psychology which has ever been advanced.

b. *Mechanistic Psychology*

There is a group of so-called psychologists who are not content with attempts to interpret higher functions in terms of the lower. They wish to annihilate the higher functions completely. This they proceed to do by the simple Machiavellian tactics of denying them. The mechanizers have self-denominated themselves "behaviorists" and by virtue of the process of self-labeling and the strenuousness of their lurid absurdities have attracted more attention than they deserve. For, unlike the *bona fide* physiological psychologists they have made no significant contributions to the study of personality. True, some of this group have made contributions in the realm of physiological psychology. But not one of these contributions is dependent upon or contributed to by the intolerant doctrines which the group so blatantly enunciates. Progress might have been made equally well without the impedimenta of conceited denial with which the behaviorists are weighted down.

To the pure mechanists psychology concerns itself with nothing but objective performances of the mechanism. Everything subjective is ruled out of the picture. The term "seeing" or "hearing" cannot be countenanced since it involves subjectivism. Rather must we say "reaction to a light stimulus." Memory goes and is replaced by "an exhi-

bition of manual, verbal or visceral organization." Emotions disappear and in their place we have "profound changes of the bodily mechanism as a whole, but particularly of the visceral and glandular system." Introspection as a method is of course entirely rejected and the method of "psychology" becomes that of objective reading of observed reactions of other organisms. Woodworth allows a concession to Watson's defense of his right to be called a psychologist which the present writer cannot allow. When behaviorism was laughed at as "muscle-twitch psychology" Watson replied vigorously and claimed that while physiology was specially concerned with the organs which compose the individual, behavioristic psychology differed by concerning itself with the activity of the whole individual. This appears to be not merely a libel upon physiology, which is certainly concerned with the whole individual, but a perversion of the notion of psychology which by ruling out many and the most important phenomena of personality still pretends to be concerned with the total personality.

CRITICISM OF PHYSIOLOGICAL PSYCHOLOGY

After what has been said above no lengthy criticism of physiological psychology seems necessary. Reference has already been made to its tendency to interpret the higher functions of personality in terms of the lower. In this attempt physiological psychology has signally failed. It has, therefore, hastened to the alternative of either ignoring or denying those phenomena which it fails to explain.

But physiological psychology, on account of its very objective nature, affords a key to the understanding of personality which is of great worth. If this branch of psychology could redirect its energies, which are at present absorbed in an application of statistics in ways which are

often petty and frequently so little understood as to be almost valueless, the field of psychology might be much advantaged. If the data of physiological psychology should no longer be used as a screen to prevent the clear vision of the higher functions of personality, but rather a guide to their better understanding, much would be gained. If by means of the mechanism we may look into the depths of the personality which is the source of its life and action, new and valuable contributions could be added to our psychological knowledge.

GESTALT PSYCHOLOGY

Still another group of psychologists working in Germany have been called the Gestalt psychologists. The fundamental characteristic of Gestalt psychology is its emphasis upon the organized wholeness of behavior. It emphasizes the nature and functioning significance of wholes and disapproves of separately existing analyzed parts. A whole, to the Gestalt psychologists, is something quite different from the aggregation of its separately recognized parts. For example, if musical notes are arranged in a sequence a melody may be built up. It is obvious that the melody is a characteristic of the whole composition which was not evident in its parts. If the composition is analyzed into its separate notes, the melody, which is a function of their combination, disappears and is lost sight of.

This phenomenon of the whole as more than the aggregate of its parts is not so astonishing as it has seemed to some. It requires for its understanding nothing more than a realization that in any organized structure there must be both entities and relationships or configurations. A Gestalt is just such an organized structure. The very fact of its organization demands that its totality shall be more than an aggregate of its parts. Its totality, however, may not be

more than an aggregate of its parts and relationships. Observe a simple set of dots arranged in three to form a triangle.

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. . .

There are many more relationships existing between the dots than there are dots. If we regard the triangle as a Gestalt, then the Gestalt is the sum total of the dots and their relationships.

The Gestalt psychologists, while seeming to miss this simple explanation of the mysteries of the Gestalt itself, have nevertheless seemed conscious of it in their emphasis upon what has been called *figure* and *ground*. Pointing out the very significant fact that the personality does not perceive the world in terms of analyzed elements but in configurations or Gestalts, they have indicated these two aspects of every Gestalt. Each Gestalt has both figure and ground. Take, for example, the triangle represented by the three dots. The figure is the figure of the triangle. The ground is the area of the triangle. This is but another way of saying that every configuration has at least two entities (dots and area) and that these are observed by the personality in certain relationships to one another.

Emphasis upon this tendency of the personality to apprehend experience in related wholes in terms of Gestalts is the great contribution of this school of psychology. Engaged in the process of analysis we have too often forgotten that personality is itself a whole and that it deals with its experience in wholes. Thus the very stars in the sky, while they cannot be said to be prejudiced by nature to belong in certain groups, have been mapped out by man into constellations. We recognize our Orion and our Virgo, our Corona

and our Leo. Each constellation is a configuration which seems a whole to the perceiving individual.

This conception of the Gestalt has been a wholesome corrective to some of our notions of behavior. Applied to the realm of animal behavior this notion has enabled Köhler, while studying the reactions of chimpanzees in the Canary Islands, to offer some interesting evidence. The animals which he studied were able to fit two bamboo sticks together to secure food at a distance, and to pile boxes in rickety fashion, raising their height so that they could reach bananas suspended above. This activity of the chimpanzees did not seem to follow a pure trial-and-error process in the sense of testing all present elements. Rather did they proceed by random movements suddenly punctuated with leaps forward. The chimpanzee Sultan, for instance, for more than an hour went through random movements with two sticks. He even placed the two ends of the sticks in proximity without fitting them together. Later on, happening to hold the rods in such a way that they were in a straight line and the end of one rod opposite the hole in the other, he pushed the thinner one a little way into the opening of the thicker. He immediately jumped up, ran to the railings, and drew a banana toward him with his lengthened instrument. Thus he proceeded by trial and error for a while, but suddenly the unity of the long stick changed the relationships within the environment and a new Gestalt was formed. He now made a leap forward in his problem. He perceived, not a new element of the situation which enabled him to carry on a new series of trial-and-error movements, but a new Gestalt or total situation which enabled him to act at once. This combining process, by which the animal reacted not merely to the new entity but to the new Gestalt composed of both entities and relationships, has been called "insight." Insight would be the

power of the animal to perceive Gestalts or whole patterns rather than elements. Experience is not of unrelated entities but of related ones. We perceive the world in patterns of both figure and ground, in configurations. So have the Gestalt psychologists applied their ideas in the realm of behavior.

CRITICISM OF GESTALT PSYCHOLOGY

The unifying effect of the teachings of Gestalt psychology has been most wholesome as an antidote to current separatism. Although the idea of personality as set forth in this book is not that of Gestalt psychology nor even directly the result of a study of Gestalt psychology, yet it is under the influence of the ideas of this group. Personality is obviously a Gestalt. It is a whole composed of entities in relationship. The importance of the personality as a functioning whole which has been emphasized and reëmphasized in these discussions is entirely in line with the basic ideas of Gestalt psychology. The debt of these pages to this branch of psychology, as well as to all of the older groups, is readily acknowledged.

Unfortunately, however, Gestalt psychology has, like most of the other schools, been tempted to disavow to some extent the positions of other schools. The opposition to the ideas of the physiological psychologists, which the Gestalt group find in their work, seems to be almost entirely unwarranted. Objection is made to the notion of the S—R bond theory. The work of Thorndike has been somewhat inaccurately criticized by some writers. Objections are made to the theory of association and to the notion of learned behavior as a series of reflexes linked by conditioning.

It is not unnatural to expect that a school such as the Gestalt school would take issue with the physiological psy-

chologists. This is almost as much a fault of the latter group as the former. Many physiological psychologists have tended to emphasize the analytic attack in explaining conduct. While Thorndike may be regarded as comparatively free from the accusation of undue atomism, others of similar teachings have leaned to a brick-and-mortar type of psychological analysis in which the S—R bond is the brick and association the mortar. With its antagonism to analysis the Gestalt group would naturally tend to differ from this method of attack. Again the tendency of physiological psychology to explain conduct in terms of the mechanism results in an objectivism which scarcely harmonizes with a point of view which postulates "insight." Insight must, to a certain extent, be subjective. To the individual who believes in "insight" the personality must be the combining individual rather than the environment. So on this second count the two schools might be expected to disagree.

Such disagreement is particularly unfortunate. In the most obvious way the work of the Gestalt school seems to be actually corrective and complimentary to that of the physiological psychologists. The notion of Gestalts or wholes tends to correct a notion of the S—R bond which is atomistic. On the other hand, the laws of learning provide an excellent explanation of the functioning of the Gestalt in the total personality.

The Gestalt psychologists have been unduly afraid of analysis. In their enthusiasm for organized wholes they have overlooked the fact that analyses may be soundly made in terms of entities which have not been treated out of relationship to the other entities within the Gestalt. Analysis is inevitable. It is the error of unrelated analysis which must be studiously avoided. Every analysis should begin and end with a related entity and be suitable for re-synthesis.

THE ANALYSTS

The development of Viennese psychology under the initial leadership of Freud has been so different from that of other schools as to present a contrast which is remarkable. Developing out of the practical needs of medical practice and psychiatry it was intensely pragmatic. What seemed to work in obtaining a cure became its basis. Not merely independent of the theoretical psychology of the schools, this medical psychology was almost antagonistic to it. It was seeking not truth but cures. When cures came what seemed like truth was formulated into a system of psychology.

This might lead us to believe that the analysts were basing their work on certain fundamental characteristics of personality with which academic psychology was failing to concern itself. This was indeed so. The analysts have all concerned themselves with the functioning of the life force in finding its expression via the personality. This is not, of course, the theory of the analysts. Unconsciously, however, they have all concerned themselves with this phenomenon. The lack of a clear understanding of this has led to certain almost mystic and at times bizarre theories.

Let us build up this basic assumption in order to see how the work of the various analysts falls in line with this fundamental explanation. The life force is essentially a form of energy seeking its expression by means of the activity of the personality. So long as personality functions normally and correctly the individual continues in the normal path and is in no state of internal maladjustment or confusion. The natural normal acts of everyday life are carried on in a way which is satisfactory to the individual concerned. Activities occur in a straightforward or normal

manner. But unfortunately the functioning of the personality is not always normal or complete. Due to situations encountered in the environment, or to improper functioning of the personality, aberrations of personality occur. Considering the mechanism alone as the origin of the disorder, germs from without may disorganize the personality. Incorrect functioning of such an organ as the heart may cause an equally disastrous result. In the vaster realm of personality which is concerned with thinking, purposing, and with the emotions, the habits and the various manifold responses, similar disorganizations may occur. When such disorganizations are present the individual is regarded as a psychic case. He is no longer a normally functioning individual. He is neurasthenic or neurotic. He is a fit patient for a psychiatrist. Such individuals came to Freud and the other analysts to be cured. These doctors aimed to discover what was the nature of the disorganization and to correct it if possible.

The analysts did not begin with any notion of the life force astray in the personality but rather with the disorganized person who came as a patient. Sensing the fact that disorganization might be discovered, they set about the process of exploring the personality of their patients to discover the point of dislocation. In so doing they developed the psychoanalytic technique and the theories intended to explain it.

In this exploring process Freud in the beginning was working backward from the surface to the root of the trouble. It was as though a person should explore a stream backward from the seaside, proceeding contrary to the flow of the stream itself. Thus it would happen that the various divisions and developments of the stream would be discovered before the source. It was just so with the analysts. Beginning with the diffuse expressions of the individual

to be analyzed, Freud followed up these clues one by one like threads back to a point where they were confused. He discovered confusions due to separations or *dissociations* and sought to correct them by redirection or *sublimation*.

It soon became necessary to postulate some theory as to what this force, of which evidence began to increase, really was. This Freud attempted to do by discovering its nature. This seemed to be a sort of sex drive or urge. Thus Freud was led to the extraordinary error of mistaking the life force, which is fundamental to every energy release of personality, for one of these very pressing forms of release. Freud denominated this driving force as the "libido" which he identified with the sex drive. He was himself aware of the fact that he might be dealing with a tributary rather than the main stream. Just as a scientific explorer might carefully realize the possibility that he was exploring a mere tributary Freud himself made quite clear that he identified the libido with the sex drive because it was the first great stem force which he encountered in his backward search into personality. Nor was it strange that this should be so. When studying with Charcot Freud was impressed with his statement that in cases of disordered personality if you explored deeply enough you were bound to find the disarrangement connected with the sex life of the individual, "always, always." By actual dealings with patients Freud found this to be true. So it was that the urgency of the sex drive and the frequency with which it was encountered as a source of trouble in *disorganized* or *ill* individuals led him to identify it as the fundamental driving force of individuals.

It was, of course, quite natural that many cases of disorganized personality should be related to sex drives because of the very function of repression, which is the means used by the personality to prevent the discharge of the life

force in its *normal channel*. The life force should issue in action which is appropriate. When it fails to do so the activity is held back or repressed and the life force finds its outlet via some other, *substituted*, activity. The tabus and conventions which surround sex in modern social life result in the repression of those drives in such a way that they often find issue in strange and complicated ways which so warp the behavior of individuals that they are in need of psychiatric treatment. Thus was Freud led to identify tentatively, if mistakenly, the libido with the sex urge rather than with the more fundamental phenomenon of the life force.

Adler, having had the advantage of building his work on that of Freud, was able to progress somewhat further. Using technique and method similar to that of Freud, his analyses of personality led him into other channels. He adhered to the Freudian techniques of free association and dream analysis but emphasized his patient's unconscious attitude to his present problems. For Freud's conception of the libido or sex drive he substituted the more fundamental driving force which he termed the "ego." This "ego" he practically identified with the self-assertiveness of personality. This self-assertive force, rather than a sex force, he regarded as the fundamental driving force of life. For this reason matters of inferiority and superiority assumed great significance in his thinking. Individuals with some organ inferiority or some supposed personal inferiority may have an inferiority complex and tend to *compensate* for it. This compensation may take the form of a superiority complex which develops as a protective device. A person inclined to be timid may develop into an individual who seems thick-skinned and blunt because he has developed a fashion of appearing blunt to hide his real timidity.

Adler's psychology comes a step nearer to normal everyday conduct and is of assistance in understanding not merely the variations of individuals from the normal but also much of the conduct of normal individuals. By considering the "style of life" which the individual has developed in order to meet the special variations of his life among others much may be gained. Thus the only child, the spoiled child, the hated child, the eldest child, all tend to adopt a style of life which enables them to live under the conditions of their personal life.

Jung made additions and improvements to the Freudian positions by elaborating the matter of his patients' present problems, whereas Freud had been more concerned with tracing back to previous causes. Freud, by tracing the origin of neuroses back to an "exciting cause," had thrown light on the trouble. Jung proposed to consider in addition the "exciting cause." An individual, Jung points out, may go far in life with many complexes due to maladjustments in childhood and may yet not become neurotic until he faces some problem which needs a present solution. Failing to meet the problem he slips back or regresses to his earlier habits of meeting difficulties whether they have been satisfactory or not. By analyzing the patient's past and present states the analyst is enabled to give him an understanding of them and enlist the patient's support in straightening matters out.

Proceeding back toward the source Jung was led to postulate a force which is analogous to and may be identified with the life force already mentioned. He sought to find some similarity between this form of energy and the energy of physics. Thus he went back further into the personality and sought the source of the energy which the personality seemed to him to express. Freud before him had postulated the presence in the individual of a certain realm

or state of affairs which he called the *unconscious*. The unconscious is a convenient but unnecessary way of referring to what is not known or not understood. Psychoanalysis has been referred to as "depth psychology." As the investigator proceeds further in his study of a patient he gets deeper and deeper into the depths of his personality. He explores backward into memories which have been forgotten by the patient. He discovers his hidden life. This realm of what has been forgotten or has never seemed to have come before consciousness is by Freud regarded as the unconscious. The term and the concept are a result of the fact that Freud in his backward movement in the study of personality had merely discovered that unknown limbo where his knowledge could lead him no further. The concept of the life force suffusing the personality makes unnecessary any such separate division of the personality into the conscious and the unconscious.

CRITICISM OF ANALYTIC PSYCHOLOGY

The great contribution which has been made by the analysts to the study of human personality has been due to the fact that they have followed up a neglected clue to human behavior. Proceeding earnestly in their work of following up this clue they have not bothered to concern themselves with the other branches of psychology. As medical men they were not specialists in psychology and so had probably but a sketchy psychology to work on from the beginning. For that reason and for the reason that the clue which they found was one neglected by academic psychology they have been particularly isolated. Perhaps more than any other school, the work of the analysts has not been related or integrated with that of other schools.

Yet the most promising and desirable results would ensue from the relating and interrelating of analytic psy-

chology with that of other schools. Such a whole interaction of psychoanalysis with physiological psychology, for instance, would be most illuminating. It would not merely enable the Freudians to avoid much that is mystic and esoteric in their doctrines but would result in a combination of psychological techniques which would be a distinct improvement on the present methods of dealing with psychological deviates.

CHAPTER XXV

EXPANDING HORIZONS

PSYCHOLOGY has reflected the general disorganization of our times. We have lived through the confused period of a disintegrating social structure, through the end of an historic period. In the meanwhile many have despaired of psychology; some have abandoned it. Yet surely there is promise ahead. With the orientation of a new generation there is hope. We can be sure that from the present welter will emerge a more confident and practical understanding of human conduct.

Psychologists have said that the application of the experimental method to the study of mind has been the greatest event in the history of psychology. Freedom from the bondage of that method will be a greater event. For the experimental method has paralyzed the fuller study of personality. Münsterberg's special abstract construction must give way to a study which is a revelation of human values. In defining the limits of psychology Münsterberg wrote that psychology considers the mental life as an object to be analyzed into its elements and to be explained by laws. Yet after decades our "abstract" psychologists have produced not elements which live but secluded and esoteric systems. They have developed no laws worthy of a name. Their hypotheses have become their creeds and their "laws" their shackles.

We are not without evidence of a psychological awakening. At the thresholds of our orthodox psychologists are those who will be their undoing. Many psychologists today are looking with new vision toward a fuller and more practical understanding of human behavior. There is as yet no

uniform approach toward the study of personality. Some do not even realize that it is needed. It was but recently that Dewey wrote that the existence of different schools is at present an asset rather than a liability. There has been no clear recognition of the point of view set forth in this book, and consequently no effort to follow it out in an extensive program of integration and research. This work is still to be done. The marshaling of the values of each and every school of psychology about the various processes of personality, with the resulting integration and resolution of conflicts, is a task worthy of a whole bureau of research. Each of the processes of personality must still be considered in the widest fashion. The process of habit forming, for example, is in great need of scrutiny. It should be considered in related fashion in terms of the copious contributions of the physiological psychologists, the Gestalt group, the Freudians and all the others. This alone would be an enormous task. Similarly each and every aspect of personality may be developed in complete fashion.

In spite of the absence of a complete and organized approach to the study of personality many individuals in isolated fashion have been moving in this direction. Certain approaches indicate a breaking of the ranks.

THE CASE SYSTEM

The case system of the practicing psychiatrist, which has been used for many years, was one of the first definite steps in the direction of the psychology of personality. In the pursuit of the practical goal of integrating and healing personality, psychiatrists have been led by the road of integration. Through recent years our psychiatrists and practicing psychologists have been distinguished by the same characteristic brands as their various psychologies. Practicing psychologists and practicing psychiatrists have been

very much of a piece. Some have been proponents of one approach, via tests and measurements, while others have followed up the bizarre if tenuous leads discovered in dreams. More recently, however, practitioners have thought more of their patients than of their theories. Beginning with the individual for whom they were working they have marshaled resources from every side. Thus all branches of psychology have been called to contribute to the making and remaking of men.

This tendency is indicated by the points suggested by Professor Levy⁷¹ for the study of a child:

1. Identifying information.
Name, age, nationality, etc.
2. Behavior for which child is being studied.
 - a. Complaints.
 - b. History of complaints.
3. Developmental history of the child.
 - a. Gestation period and delivery.
 - b. Medical history from birth to date.
 - c. Early development.
 - d. Early habit formation.
 - e. Early personality development.
4. Child's present background and make-up.
 - a. Later personality developments.
 - b. School adjustment.
 - c. Recreational interests.
 - d. Sexual adjustment and development.
 - e. Vocational adjustment.
5. Family History.
 - a. Parents' relationship to grandparents.
 - b. Parents' personal history.
6. History of siblings of patient.
7. Parents' methods of discipline.

8. General background.
 - a. Neighborhood.
 - b. Home.
9. Information *re* informant.
10. Summary.

This brief outline is not adequate to do justice to the method which it indicates. The reader is advised to read Professor Levy's fuller description which is too long to quote.

THE PERSONAL SURVEY

The personal survey is similar to the case system but since it is directed toward the understanding of normal children who are not psychological deviates, it is rather a general scrutiny than one directed to the solution of a personality problem. Such a plan for individual survey has been tentatively developed for the Windward School of White Plains, New York, by Mr. George O'Neil. Its value as a background for the direction of children in school is obvious. Such a survey is made and recorded for each child in school. It is made the subject of conference between teachers and parents, and is thus a basis of co-operation between school and home. It may also be used in case of behavior problems.

INDIVIDUAL PROGRESS RECORD SUMMARY

I. PHYSICAL STATUS

A. Height and Weight

B. Attendance

C. Physical Observations:

1. Energy:

a. Vigor:

Color

Physical strength { Controlled, uncontrolled
EnduringEnergy output { Inert
Tires quickly

b. Fatigue

Types of reaction {	Physical {	Restlessness — nervous hands and feet—moves about room — annoys other children
		Paleness — carsickness
		Tics: hands — body —face
		Stops to rest
Nervous {	Withdraws — quiet —shy	
	Disintegrates — excited—loud voice —garrulous	
Mental {	Suggestible	
	Stubborn	
Emotional {	Apathetic—emotionally susceptible—	
	irritable tears	

- c. Situations contributing to vigor or fatigue {
- Weather — heat, cold, wind, dampness — needs sunshine
 - Change of season
 - Trips
 - Academic pressure
 - Tests
 - Emotional experiences — watching and taking part in plays, gifts, games, novelties, social difficulties
 - Factors outside school — lack of sleep, parties, guests, movies, weekend trips, deviation from home routine

2. Posture

- a. Sitting {
- Climbs on chair
 - Hunched over shoulders—eyes too close
 - Head on hand or arms on desk
 - Slumping in chair
 - Stiff—bolt upright
 - Sits on foot—feet fidget—legs twisted —feet on floor, flat or on edge
 - Sits on edge of chair or sidewise
- b. Standing {
- Weight on one foot—stands on sides of feet
 - Rocking on toes and heels
 - Shoulders forward—chest sunken
 - Head down
 - Hands in pockets
- c. Running—fast or slow, awkward—knees stiff—flat feet
- d. Walking—doesn't lift feet—bends knees—toes out or in—knock-kneed—swaggers—clumping—goes quietly
- e. General Activity:
1. Coördination
 - Small muscles—handwork
 - Large muscles—apparatus—tools—throwing and catching—arms, legs and back

2. Balance—sure-footed, trips, falls—at heights
3. Grace—rhythmic—jerky—on uneven ground
3. Physical Mannerisms:
 - a. Head
 1. *General* — jerking — strained position — head down—stiff necked
 2. *Face*—blushing—tense—wrinkled brow—fixed smile—twitches
 3. *Eyes* — blinks, twitches — indirect glance — strain, squints, sensitiveness to light, over-brightness—glasses—hypnotic stare
 4. *Mouth*—sucks lips, pulls at lips—sucks thumbs —mouth open—puts things in mouth—hand over mouth—chews pencil, cheek—bites nails—sticks out tongue—drools, spits
 5. *Voice*—quality—shrill, abrupt, low, loud, hollow vowels, nasal, harsh
handicaps—lisps—stutters, repeats—stammers—enunciation—baby talk
disturbances—mutter to self—talks out loud—whistling—hissing—humming—suggestive noises
expression—whining, petulant, plaintive —coy modulation — babyishness — two voices—demanding and assertive
 6. *Breath*—deep, shallow—irregular—mouth or nose—snuffles—halitosis
 - b. Body
 1. *General*—shrugging shoulders—legs, arms—body odor
 2. *Handicaps*—crumples paper while reading—touches everything, needs things in hands—taps—twists or pulls hair—scratches and picks nose, eyes, ears, body—masturbation, handles genitals, hands in pockets
 3. Feet—taps
4. Hygiene Habits:

Appetite—large, small, irregular
Manner—slow, gobbles, plays with food or utensils

 - a. Food—urging to finish
Distractions—noise, excitement

BUILDING PERSONALITY

- Dislikes*—definite food—fish, meat, spinach, etc.
 certain quality—soft, dry, goo-ey, sour
- b. Functions Digestion Span—needs midmorning or midafternoon lunch
Amount of water
Nausea—gas
Acid condition—breath, tongue, chronic colds
- c. Rest Needs at school
Relaxation—things in hands—makes noises—
 —attracts attention
Thumbsucking
Attitude—enjoys or objects
Reaction to music or reading
- d. Dress Speed
Neatness
Cleanliness of clothes and face and hands
- e. Toilet Habits—Frequency and control
 Independence
 Effect of emotional strain
 Unusual evidences of interest

Summarize at this point the inference resulting from the observations as to Physical Status. Also, consider what might remedy the conditions thus inferred.

II. OCCUPATIONS

A. Social

1. Group Play and Games:

a. Activities

1. Team Games—basket-ball, football, soccer, baseball, volley-ball, track, deck tennis
2. Social Games for companionship without great physical effort—Imaginative and Dramatic Games—house, store, boat, family, train, airplane, Jacks, Prisoner's base, dodge ball, bull in ring, three deep, etc.
3. Personal Games for Individual Satisfaction—apparatus, boxing, wrestling, fencing
4. Games in which a child can dominate under his own rules—Clubs, huts, hobbies

- b. Skills
 - Specific abilities
 - Strength and weight—legs, arms
 - Coördination—eyes to hand—throwing and catching ball
 - eyes to feet—kicking
 - balance—running
 - Understanding of games—headwork in games
- c. Attitudes
 - Boasts, demands prominent position—good sport, loses or wins well—shows anger or tears
 - Overdaring, reckless—courageous, brave—coward, withdraws
 - Sadistic—stands pain—gets hurt on purpose
 - Always in middle of game—always in own place—plays just out of game
 - Excited, overdoes, overplays—cool-headed, accepts responsibility—scared, fails or refuses to play
 - Overenthusiastic—interested—bored
 - Overcompetitive—good drive, interested in game—loves to lose
 - Takes advantage—plays fair—withdraws
 - Bosses—coöperates, team work, leads—shy, follows
 - Combative—able to give and take—shows fear of contact
 - Plays with younger or smaller children—Plays with own age and size—Plays with older or larger children
- 2. Group Morale:
 - a. Participation
 - 1. In group activities—will accept division of labor—fits into job as a whole
 - Does his own share—appreciates others' contributions
 - Contributes ideas and things
 - Relation to teacher—ignores, asks for help intelligently, leans on
 - 2. On Excursions
 - Approach—looks forward to, plans for, questions, contributes ideas and things

BUILDING PERSONALITY

Self-control—silliness, disorder, fatigue, over-stimulation, concentration

Relation to teacher—ignores, asks for help intelligently, leans on

b. Responsibilities and Attitude toward

Supplies

Room order—putting materials away

Group job—house committee—pouring and serving water (Nursery)

Property—personal, another child's group, another group's school building and grounds

3. Individual Free Activities:

a. Indoors—initiative—with or without adult. Art—craft or project—study—sociability—conversation, plays, dramatic games

b. Outdoors—initiative—organized games—clubs, huts, etc. (leadership), apparatus—sociability—games, walks, etc.

Summarize at this point inferences resulting from observations as to Social Activities. Also consider what might remedy the conditions inferred.

B. Academic

1. Sense Training:

a. Eye—Observation and sight memory

b. Eye and hand—tearing, cutting, matching
Left to right—picture or book reversal

c. Ear—Counting sounds—recognizing sounds

d. Smell—Identify spices—foods—odors (burnt, etc.)

e. Taste—Sweet, sour, salt, hot, cold

f. Touch—Feeling of materials

g. Memory—Poems, facts, commands

2. Tool Subjects:

a. General

Reaction to tests

Educational grade and age

Gain or loss

b. Reading

Grades and gain

1. Mechanics
 - Silent*—Finger
 - Lip
 - Whispering
 - Breaks
 - Eye Span
 - Repetition
 - Reversals—left to right
 - Oral*—Pronunciation
 - Enunciation
 - Expression
 - Smoothness and speed—hesitation—phrasing—repetition
 - Projection
 - Delivery—ability to hold audience—dramatic
2. Interest and Choice
3. Content Assimilation — Words, simple and complex sentences, paragraphs, material as a whole, humor and pathos
 - Literature Test Score
- c. Manuscript
 - Progress in workmanship, neatness and distinctive hand
 - Relaxation and posture
 - Coördination and free arm—exercises
 - Amount of board work
 - Hand (left?)
 - Grip
 - Speed
 - Size and regularity
 - Reversals and misformations
- d. Spelling
 - Grade and gain or loss
 - Alphabet (knowledge of)
 - Phonetic analysis
 - Method of study—oral, phonetic, alphabetic
 - visual, must write to learn
 - Use in written English
 - Interest in new words
 - Handicaps—poor reading or poor manuscript
 - visual deficiency

- mispronunciation
- poor vocabulary
- e. Number
 - Grade and gain or less
 - Processes being taught
 - Numeration and Measure
 - Combination—flash cards
 - Computation—count, add, subtract, multiply, divide, etc.
 - Attitude toward drill
 - Attitude toward new process
 - Reasoning and practical use—time, volume, weight, linear, money, area, sense of proportion
 - Enjoyment of number concepts
- f. Academic Work Habits—see outline for Work Habits, page 279.

Summarize here inferences with regard to Sense Training and Tool Subjects. Also, consider what is necessary to promote further progress.

- 3. Social Studies and Science:
 - a. Intellectual Ability as shown in discussion
 - 1. Approach
 - Passive—listens, needs to be drawn out
 - Active—full of questions, alive with interest in every direction
 - Negative—ill at ease, needs assurance, self-consciousness, absent-minded, not interested, needs to learn coöperation and self-control, makes irrelevant comments, interrupts, argues
 - 2. Information and General Background
 - Curiosity—habit of inquiry
 - Contributions from

{	personal experience
{	outside reading
{	excursions
 - Brings things from home
 - 3. Comprehension
 - Clear—variable
 - Poor observation and attention—needs repetition
 - Relates to his own experience

4. Capacity for individual research—takes home and follows up school interests
5. Mode of reception
 - Oral—"orally nose"—psychologically deaf—judgment suspended while listening
 - Visual—"peeper"—mental images
 - Muscular—manual—must touch things—concrete interest
6. Note relation of IQ to this section
- b. Interests in project (which attract and in which he excels)
 1. Mechanics and Physical Science
 - Wheels—Boats—water—winds—stars. Fire. Tools—utensils. Weapons—war—hunting. Engines
 2. Animals and Life Science
 - (Standard Achievement Score and gain)
 - Pets. Wild animals. Farm animals. Plants and growing things.
 3. Pictorial and Historic
 - (Stanford Achievement Score and gain in History and Civics)
 - Fantasy. Adventure. Power—rulers
 - Religion—magic. History—peoples
 4. Personal and Social
 - Clothes—jewelry. Domestic situations. Personalities. Food. Shelter.
 - Human Geography—relation and effect of environment on peoples
 - (Geography Stanford Achievement Score and gain)
 5. Intellectual: (records and symbols)
 - Geography maps—(printed and relief)
 - Writing
 - Books
4. Language:

<ol style="list-style-type: none"> a. Latin <ol style="list-style-type: none"> Pronunciation Comprehension and interest Syntax Inflection 	<ol style="list-style-type: none"> b. French <ol style="list-style-type: none"> Comprehension and interest Syntax Inflection Vocabulary
---	---

- | | |
|-----------------------------------|--------------------------------------|
| Vocabulary | Idioms |
| Idioms | Relation to English |
| Relation to English | Appreciation of culture |
| Insight into civilization of Rome | and habits of the French as a people |
| Imagination | Imagination |
| | Conversation |
- c. English—Discuss with regard to oral, written and dictated
1. Subjects: (note whether pronoun or personal) (reflection of museum and other trips)
 - Adventure—killing, fighting, treasure, dramatic, action, humor, mystery
 - Romance—princes and princesses—love stories, imaginative descriptions
 - Factual—analysis, cause and effect—exposition—description of how done or made or used
 2. Form:
 - Narrative—exposition—play—diary—dialogue—letter—verse, metrical, rhyme, imagistic
 3. Style:
 - Structure—coherent, clear, long without emphasis, brief and unemphatic, confused thought
 - Quantity—sparse, detailed, redundant
 - Quality—vivid imagery, colorless, humor, barren, rich
 4. Language Usage: (Stanford Achievement Score and gain)
 - Grammatical errors and errors of mispronunciation
 - Incomplete sentences
 - Repetitions of connectives and personal pronoun
 - Vocabulary (nouns, verbs, adjectives, adverbs)
 - Meagre, rich, redundant, unusual
 - Accurate, vague, literary
 - Sense of climax
 - Adaptation of speech to hearer
 - Rhythm of speech

5. Mechanics:

Written

Punctuation—capitals, periods, question marks, exclamation points, quotation marks

Form—paragraphs, margins, titles

Oral

Pronunciation, enunciation, expression

Smoothness and tempo, repetition and phrasing

Projection, delivery and poise

6. Significance of Spelling and Manuscript

C. Art Achievement—Expression and Appreciation

1. Painting and Drawing:

a. Materials

Paint, oil, water

Chalk—crayon, pastel, charcoal

Pencil and ink

Colored paper

b. Style

Size—large, medium, minute

Detail

Interpretation—abstract, realistic, decorative

c. Techniques

Perspective

Composition—drawing and design

Proportion and form

Rhythm or movement

Color use

Clear or muddy, soft or contrast, primary or pastel

d. Choice of Subject—imaginative or naturalistic

e. Appreciation

Intellectual—perception and analysis, color distinction, form

Emotional—narrative, mystic, sensual, specific

f. Work Habits—see page 279

g. Skill—talent

2. Dramatics:

a. Play-writing (project or other subject?)

Imagination of situations—dramatic, consistent

- Logical plot development—sequence, climax, suspense
- Authenticity—characters, setting, motives, language
- b. Casting
 - Acceptance of part
 - Attitude toward rest of group
 - Acceptance of criticism and coaching
- c. Scene making—imagination and ingenuity in use of materials
- d. Managing and directing—tact and ability
- e. Costuming—creative feeling for materials and color
- f. Acting
 - Overdramatizes—interprets and expresses character
 - Expression — mechanical — enunciation — monotonous—insincere—gesture—tendency to repeat a gesture or tone
 - Stage presence—feeling for projection
 - Sustains well when not speaking—cues
 - Back stage morale
- g. Social Development
 - Less self-conscious—more assured
 - Fair minded—more objective
 - Shy, modest, tendency to exhibitionism
- 3. Music and Rhythms:
 - a. Ear—
 - Notes—know their names—tells them apart—reads them—sings consecutive notes at sight
 - Intervals—2, 3, 4, 5, etc., struck simultaneously
 - major and minor chords
 - scale construction
 - keys
 - modulation
 - b. Singing
 - Carrying a tune and tone deafness—memory of tunes—speed of learning tunes
 - c. Rhythm
 - Physical Rhythms
 - Coördination or body control—marching, beating time
 - Note values—clapping, percussion orchestra

- Rhythm Perception
 - Emphasis in beat
 - Note values
- d. Musical instinct, intelligence and capacity
 - Enjoyment—attitude toward music classes
 - Taste
 - Creative ability
 - Desire to play instrument
 - Confidence before the group—shyness, showing off
- 4. Shop and Crafts:
 - a. Activities
 - Modelling
 - Pottery
 - Woodcuts, copper, linoleum
 - Sewing
 - Dyeing
 - Casting—plaster, cement, papier-maché
 - Carpentry
 - b. Work Habits—see below
 - c. Use of tools—skill
 - d. Motive—project
 - esthetic interest
 - personal interest
 - suggestion from adult or other children

Summarize here inferences with regard to Language and Art Achievement and consider what might be helpful to promote further progress.

D. Work Habits (use in connection with Tool Subjects, Painting and Drawing, Shop and Crafts)

1. Attack

- | | | |
|------------------------------|---|--|
| a. Planning | { | impetus, overplans, overlooks items
organizes, responsible, definite ideas
gives up, timid
asks for help |
| b. Effort
and
Interest | { | destroys work, tears, anger, resents
pressure
carries through, steady, sustained, has
initiative
interest wanes, discouraged, needs
stimulation, loses work
plods, slow thinking, needs pressure |

- c. Workmanship {
 - erratic quality, doesn't finish,
 - can't judge work
 - high standards, thorough
 - goes off on irrelevant objects, no standards, satisfied with any job
 - satisfied with mediocre work, works only to get by
 - d. Nervous span and Efficiency {
 - erratic, tires, but comes back
 - long span, controlled, tires but continues
 - balks, no span at all, alibis, doesn't care
 - slow, accomplishes little
- 2. Hindrances to accomplishment
 - a. Social—other children, visitors, noise
 - b. Specific—pressure, tests, novelty, monotony, falling behind
 - c. Manifestations — noise, restlessness, tics, day-dreaming
- 3. Stimulations
 - a. Competition or coöperation
 - b. Approbation—praise, flattery, adult coöperation
 - c. Compensation—Interest and sympathy, reward and privilege
 - Joy in the doing
 - Relief of finishing
 - Sense of satisfaction in accomplishment
 - d. Negative alternative—punishment, deprivation
 - e. Responsibility—position, student teacher
 - f. Personal Interests—stress age
- 4. Reaction to Success, Difficulty, or Failure
 - a. Difficulty or Failure (note difference if any)
 - defiant of help—destructive, angry
 - Seeks help—patient with materials—tries again later—substitutes other objective
 - Depressed—can't accept help—day-dreams, loses interest—cries
 - Withdraws until helped—procrastinates—rationalizes

b. Success

Boasts—bites off more than he can chew—displays and overvalues work

Pleased—stimulated to new effort—pride and care of work

Belittles success—repeats successful technique—doesn't value work

Feels relieved—rests—interested in work but careless after personal significance wears off

III. ATTITUDES: (Refer back to any serious mention of the following in the outline of observations)

A. Toward Himself:

1. Is child sensitive to his world?

Is he discriminating, keen, interested, as to color, sound, motion, feeling, etc.

Is he tender? Imaginative?

Has he a feeling for ethical values?

Is he alert to the relation between causes and effects?

2. Has he been hurt, or are there any serious irritations in his life? Has he any handicaps? How does he react?

Does he show fear? (of people, things, dreams, stories, animals, the dark, strange places, physical or psychic hurt?)

Has he had any experiences, actual or vicarious, which have developed unhealthy attitudes in his sex interest?

Does he take these out in social or antisocial expressions (compensation) as aggressive manner, teasing, sadism, bullying, "trying out," masturbation, retreat or escape, nervous motions, physical activity, self depreciation?

What effort does he make to redirect these into social expression (sublimation)? Any expression in an art form?

Has he a healthy conception for his age of sex as something potentially beautiful in his life?

3. Has he had any satisfactions or great joys in his life, or has he any special talents? Does he recollect them? How have they influenced him?

- Has he developed confidence in any special ability?
 - Has he any vocational ideas?
 - Have they made him more mature?
 - Does he show delight in work well done or a skill improved?
 - Does he make any effort at any creative expression of these experiences?
 - Does he desire to share these experiences?
 - Are his possessions important to him?
4. Has he a subjective or inner personal world that he feels is real? What kind is it? Does he like to be alone?
- Has he an imaginative world? Does he fantasy or day-dream? What is the content of this? Is it a symbol of power, sex, great possessions or companionship?
 - Does he dramatize himself in terms of characters in fiction, or history or someone he knows?
 - Does he feel himself in contact with something greater than himself?
5. Is he courageous about the unknown?
- What kind of interests have been typical? What kind are now?
 - Is a routine life important to him? Is he exacting of his environment?
 - In what experience does he feel most confident?
 - Is he curious or eager to learn? Is he persistent, purposeful, systematic?
 - Does he feel resourceful? Has he initiative? Is he independent?
 - Is he appreciative or rejecting in his approach to new fields?
 - Does he stand up under stress? Has he "nerve"?
6. Does he accept responsibility for his own attitudes and behavior?
- Does he appreciate his limitations and capacities as to age, size and aptitudes? Does he recognize a reasonable rate of growth? Is he patient with his youthful abilities and privileges?
 - Is he overcritical or well balanced in his judgment of himself?

Does he accept responsibility for correcting his own attitudes?

Is he objective or egocentric? Does he show jealousy, prejudice, temper or tendency to rationalize?

Is he objective in specific situations such as nudity on stage, changing clothes at school, dressing at home, weighing, going to the toilet, etc. Does he evidence undue interest or concern in these matters?

Does he use his emotions to stimulate himself to creative activity (real self-control)? physical action, esthetic, intellectual?

Is he challenged by an intellectual problem? Is clear, independent thinking a matter of principle with him? Or is he prejudiced, inclined to snap judgment, influenced by group pressure?

B. Toward Other Children:

1. Choice of playmates:

Does child enjoy his brothers and sisters?

Does he choose children younger, older or his own age as companions?

Does he concentrate on one or few associates?

Does he prefer boys or girls?

How does he behave toward the opposite sex? In his family? Among his friends? Is he natural, shy, silly, embarrassed, resentful, inquisitive, aggressive?

Does he prefer adult companionship to that of children?

Does he worship anyone as a hero? Does he form emotional attachments (toward children)?

Does he prefer to play alone?

Is he irritated by or does he irritate other children? Why?

2. Confidence in association with other children.

- | | | |
|--|---|--|
| a. In what activities does he show leadership? | { | games
academic
discussion
social (huts, clubs)
arts and crafts |
|--|---|--|

How does he lead?

Has he good ideas, initiative, enthusiasm, capacity to originate, develop and carry out his ideas?

Does he clarify a situation for others so that they may recognize the value in carrying out the program and do so?

Does he make use of other people's ideas and capacities?

Does he threaten, persuade, or get angry?

Has he a forceful personality?

How is he motivated to lead?

Does he enjoy the manipulation of people?

Has he a love of power and position?

Does he need to feel power as compensation?

Does he lead in order to get results?

Does his leadership spring from his own creative interest in a job?

Does he wish to promote some mischievous or antisocial purpose (revenge — emotional thrill—sex interest)?

b. In what activities and situations is he willing to coöperate (games, academic, discussion, social, arts and crafts)?

How does he coöperate?

Is he appreciative of others' ideas?

Is he willing to subordinate his own ideas to another's temporarily?

Does he contribute ideas, materials and his own capacities whole-heartedly?

Does he inspire others to coöperate?

What does he get out of coöperating? Why does he?

Satisfaction in rapport with a group or with the leader of the group?

Satisfaction in accomplishment either from creative interest or mischievous purpose (as above)?

Sense of service?

c. In what activities does he show *competition* (games, academic, discussion, social, arts and crafts)?

How does he compete?

Does he plan ahead? Use his head? Has he alert and quick judgment?

Does he make full use of his capacities? Does he take advantage of his opportunities?

Which is more important to him, winning or playing a good game?

Why does he compete?

For social prowess and approbation?

Does he desire the admiration of some particular individual?

Does he want the approval of some particular group?

Is he anxious to emulate or be better than some particular individual?

For pure joy in personal achievement in reaching a goal, developing a technique, or bettering a record?

For the satisfaction of overcoming an obstacle?

Does he get an emotional thrill out of losing?

For the sake of possessions?

d. In what activities does he show *sportsmanship* (games, academic—honesty and test situations, discussion, social, arts and crafts)?

How does he show sportsmanship?

Does he play fairly? Does he always observe the rules?

Does he recognize and appreciate superior capacities in another? Is he willing to lose and be gracious about it?

Does he appreciate his own changes in capacity without offering the alibis?

In the face of disappointment does he alibi or is he a good sport?

Is he a good member of a team? Does he subordinate himself to the good of the team?

Does he recognize the support which enables him to succeed? Does he offer much support to others?

What is his attitude in the face of defeat? In the face of success? Is he modest, gracious, boastful, sullen? Does he offer alibis?

Why does he make the effort to be a good sport?
Does he desire the approbation of another or
of a group?

Is he more "comfortable" when he is a good
sport? Does he prefer not to hurt another?
Has he any real standards in regard to good
sportsmanship? Does he imitate the stand-
ards of someone else?

e. With what and toward whom is the child *gener-
ous*?

Does he give of himself and capacities? Is he
friendly? Will he help the other fellow?

Is he jealous and possessive? Does he try to
measure and compare human affections in
relation to himself?

Is he exacting of the time and attention of
others?

Does he perceive the value of a community of
interests?

Does he share his possessions? Is he more gen-
erous with things not distinctly his own, i.e.,
his family's, his group's, etc.?

Is he willing to share only with his personal
friends or with anyone who may need what
he can give?

Is he generous (tolerant) toward other peo-
ple's ideas, actions, point of view, or differ-
ence from himself?

Why is he generous?

Does he wish to win attention or a favor of a
friend, enemy, or an observing adult?

Does he wish to give pleasure to someone?

Does he get real pleasure out of giving?

Has he a generous, outgoing attitude? Or is he
self-centered?

Is he imitating any special person, real or
fictional?

TYPES OF MEN

Inspired by the hope of classifying the species *homo* on the basis of psychic characteristics Spranger⁸⁷ of the University of Berlin has distinguished six types of men. The theoretic type might be found in the orthodox college professor. Ever eager to comprehend his experience evenly and objectively he views life in a plastic plane. Absorbed in his lofty interests he scorns practicality and his studies may wander here and there in supreme indifference to useful application. He is helpless in practical problems. Lacking eagerness for the luxuries of this world he is not highly motivated to cope with its mechanics. He is satisfied with a bed and a book.

The economic man seeks utility. To the big business man unapplied knowledge is so much impedimenta. He would like to have every force and factor in the world charted and weighed for his convenience in using it. But since this is impossible, when necessary he must take a chance. His faith in his lucky star verges on religious mysticism. Furthermore, he looks to God as to a rich one. Toward art he is comparatively indifferent, except inasmuch as it adds to his luxury world and so to his prestige. Driven by the profit motive he is egoistic and selfish, not altruistic. He is a moralist because thrift, industry, efficiency and reliability are commercially valuable. When he legislates economic claims are given the preference. Wealth is power. Men are robots.

The artist is the esthetic man. He covets impressions, for these he recombines into newly formed expression. He is interested in sensuous experience. He sees in the world that which enlarges his inner forming power. Sensation fascinates him, whether it be of things or men. Knowledge of the bookish sort can add but little. He requires the

warmth of reality. He tends to avoid the economic or the moral for it destroys the pure being of an esthetic object. He will have art for art's sake. Thus he is helpless in the presence of practical demands. He is the companion of sadness as well as of joy, for each brings the value of experience. He is socially inclined because interested in people and their ways. He dissolves in eroticism, which in youthful, pure natures is sublimated in fancy. His companions are those who are mutually interesting and who do not ask any more than one another's company. Loyalties are too great a responsibility. Piquancy in himself and others is an essential usually via the road of self-importance or even eccentricity.

The social attitude is that of the true teacher. Pestalozzi, with his abandonment to love of others, is a prototype. Science has too much object and too little soul. For the social man sees worth in the unformed soul because of its value possibilities. He will thus labor with the young, the weak, the underprivileged. He is not mercenary, he is generous. He inclines toward a religion of love. He is not legally minded, rather is he merciful. His belief in voluntarism in conduct and his abhorrence of discipline through force make him impractical in dealing with groups of people. He consumes himself in a life of altruism.

The politician stands forth in the party leader, the administrator who craves office, for office means power. He longs for power, and all value regions serve his will in that pursuit. Knowledge is useful as a means of securing ascendancy over other men, especially knowledge of psychology and social sciences. Understanding of the most effective motivations of human conduct is important. Hatred and greed may be used as well as diligence and altruism. A somewhat practical view of mankind leads to the opinion that men are prone to lower motives, that everyone has

his price. A policy of withdrawal from the ranks of common men encourages awe. Wealth is a political means. Art surrounds one's portals with glory and so by its suggestive power raises him in the eyes of men. Socially the politician serves the community for one reason or another. He is the servant of God and believes himself to be God's agent. But truth can never be for him the highest good. It must sometimes be sacrificed as a means to an end. Thus may the politician be pious without being perfect.

The religious type is comparatively rare. He is the religious or prophet who lives in a transcendental world. He seeks the highest value, the *summum bonum* of experience. He lives in the hope of suffusing all his everyday life with the supreme quality of his highest experience. He would live each moment in terms of supreme value. This hope carries him beyond the hurly-burly of our everyday world and makes his values difficult of comprehension or understanding by the ordinary mortal.

All this is suggestive but not final. The necessity of overlapping classifications is recognized by Spranger in his discussion of complex types. While most men are obviously complex, the isolation of norms greatly facilitates our understanding of our fellow men.

A HIND IN RICHMOND PARK

Just prior to his death W. H. Hudson³⁴ completed a most remarkable treatise on the senses of hearing and smell. Initiating his essay with a story of his observation of a hind in Richmond Park in London, he tells how the hind was affected, as she lay chewing her cud, by the various sounds audible and almost inaudible borne in on the wind. He then proceeds to a discussion of sound and smell quite different from anything I have encountered in the comparatively unreal books of our psychologists. There has

been much about end organs, and much about the vibration of tuning forks. Nowhere outside Hudson's fascinating work is one likely to find a discussion of the common phenomena of hearing and smell which is worth the lay reader's attention. Told in fascinating, simple prose, here may be found much that would be ruled out of our academic psychologies. We read of Romulus and Remus as just one pair of wolf-children. We hear of the restless responses of migrating birds to forces calling them northward. We read of the elusive perfume of honeysuckle caught in currents of summer air. Hudson was not within the comradeship of the professional psychologists but this book is better than a dozen of theirs. We need a host of those who will desert the laboratories and seek psychology in the Richmond Parks of this world.

PSYCHOLOGICAL GEOGRAPHY

Work has already been done by Dr. J. L. Moreno ⁵⁸⁻⁶³ on the problem of charting and studying the emotional currents, cross-currents and undercurrents of human relationships in a group or community. Individuals are represented on charts by triangles for boys and circles for girls. Colored lines connecting individuals represent emotions. Red lines indicate liking, black ones disliking. If one individual A likes another B a red line with an arrow points from A to B. If B reciprocates another red line and arrow point from him to A. Dislike is similarly indicated by a black line, indifference by a blue one.

In this fashion an entire community of five hundred girls in a State Training School was mapped, their relationships being portrayed by a nexus of seven thousand lines. Two other group studies have been made, one of two thousand pupils in Public School 181, Brooklyn, another of two hundred and fifty boys at the Riverdale Country

Day School. Charts developed from these studies indicate the flux and flow of currents of human relationship. Some individuals, usually the bright or the dull, are isolated among their fellows. Other individuals are the cynosure of neighboring interest, sometimes without any reciprocal appreciation. Groups are formed within groups, and groups overlap and interchange their members.

Mathematical interpretation of such studies is a study in itself. Ratios and quotients may be discovered which are of real significance in understanding and redirecting human living. On the basis of present studies it has been estimated that there are at least ten million psychologically isolated individuals in the United States. Experiments have indicated that the transplanting of an individual from a psychological island to a community in which he can find a real place causes a new and satisfactory adjustment. A girl who was completely maladjusted in one community, on being transplanted to another, became a leader. It has even been predicted from the estimating of psychological currents that two girls in a group would ultimately run away, a prediction which shortly came true.

The new possibilities for the understanding and direction of social life which are promised by such studies are amazing. Not merely may local affairs be charted and examined with an accuracy far surpassing that of the straw vote, but even national and international matters may be projected before our eyes. Such a visible projection of human ways may avert and solve many social problems.

Such changes and advances promise a new day for psychology. We look forward to the time when psychological study will no longer be a spectacle of bickering opponents but a field of organized striving toward human betterment. We have suffered too long from lack of delineation. In the

course of human history one field of study after another has reached full definition. Chemistry, physics, biology and many others stand forth clearly as fields in which knowledge is, for the most part, agreed upon and definite. Psychology can only now reach such maturity. The definite delimitation of its range and area as the study of human personality allows psychology to stand clearly and alone.

It has rightly been said that we know more of the stars in the milky way, more of the tiniest interstices of atoms than we do of the unsolved mystery of personality. Now we must know personality. The day must come when the maturing individual may look ahead five years into his own psychological development and prepare for the advancing symptoms of maturity. He must look into his own and into other lives and prophesy personality. Psychological maladjustment must be forecast and avoided. Preventive psychology must not lag behind preventive medicine. The mapping of personality, both individual and group, will reveal new galaxies and new universes. Just as we seem on the verge of the brilliant developments of a new social era, so we may look forward to a vast new world of psychology. Freed from the trammels of a prosaic age man's imagining may swing forth in new adventures and strange visions. We must be inspired to a new work. The world needs a great psychology.

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